Service Date: June 9, 1986

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

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IN THE MATTER of the Application of MONTANA-DAKOTA UTILITIES CO., a Division of MDU RESOURCES GROUP, INC., for Authority to Establish Permanent Increased Rates for Gas Service in the State of Montana.	)	UTILITY DIVISION DOCKET NO. 85.7.30 ORDER NO. 5160a

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PART G

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APPEARANCES

FOR THE APPLICANT:

John Alke, Hughes, Kellner, Sullivan and Alke, Attorneys at Law, 406 Fuller Avenue, Helena, Montana 59624
Cynthia J. Norland, Attorney, MDU Resources Group, Inc., 400 North Fourth Street, Bismarck, North Dakota 58501

FOR THE MONTANA CONSUMER COUNSEL:
James C. Paine, Montana Consumer Counsel, 34 West Sixth Avenue, Helena, Montana 59620, appearing on behalf of the consuming public of the State of Montana

FOR THE INTERVENORS:
C. W. Leaphart, Jr., Attorney at Law, The Leaphart Law Firm, 1 North Last Chance Gulch, #6, Helena, Montana 59601, appearing on behalf of Western Sugar Company

FOR THE COMMISSION:
Robert A. Nelson, Staff Attorney

BEFORE:
TOM MONAHAN, Presiding
CLYDE JARVIS, Chairman
JOHN B. DRISCOLL, Commissioner
HOWARD L. ELLIS, Commissioner
DANNY OBERG, Commissioner

FINDINGS OF FACT
PART A
GENERAL

1. On July 19, 1985, the Montana-Dakota Utilities Company (MDU, Company, or Applicant) filed an application with the Commission seeking a general rate increase for gas service. MDU requested an annual increase in revenues in the amount of $5,219,108.

2. Included in the July 19th filing was a request for interim relief in the amount of $4,705,854. On October 28, 1985, the Commission granted an interim increase of $4,002,799 in Interim Order No. 5160.

3. On August 12, 1985, the Commission published notice of the application and notice of a pre-hearing conference. Following the pre-hearing conference, the Commission issued a final Procedural Order on September 5; 1985.

4. Upon petition, intervenor status was granted to the Montana Consumer Counsel (MCC), Western Sugar Company, and Action For Eastern Montana.

5. Following issuance of notice, the hearing on MDU's application in this Docket commenced at 9:00 a.m. on February 25, 1986, at the Northern Hotel, 2nd Floor, Broadway and 1st Avenue North, Billings, Montana. Public hearings for the convenience of the public were also held at 7:00 p.m., February 25, 1986, at the same location, as well as at the following times and places:

Malta: February 18, 1986, 7:30 p.m.;
Glasgow: February 19, 1986, 7:30 p.m.;
Wolf Point: February 20, 1986, 9:30 a.m.;
Miles City: March 11, 1986, 7:00 p.m.

Hardin: March 12, 1986, 7:00 p.m.;

Sidney: March 18, 1986, 7:00 p.m.;

Glendive: March 19, 1986, 7:00 p.m.;

Terry: March 20, 1986, 10:00 a.m.

6. MDU, upon request, has waived the nine month provision of 69-3-302, MCA, through June 2, 1986.

PART B

RATE OF RETURN

Capital Structure

7. Applicant's witness, Mr. John Renner, presented MDU's anticipated 1985 average capital structure in his prefiled direct testimony.

8. Applicant proposed the following capital structure for MDU's gas operations (MDU Exh. A, Statement F, Rule 38.5.146, p.1 of 2):

Description	Amount (in 1000's)	Ratio
Long-term debt	$209,366	50.277%
Preferred stock	53,423	12.829
Common equity	153,635	36.894
Total capital	$416,424	100.000%

9. Dr. Caroline Smith proposed a slightly different capital structure in her testimony for the Montana Consumer Counsel. Dr. Smith excluded REA and Pollution control debt which are wholly attributable to MDU's electric operations.

10. MCC's proposed capital structure shows the effects of this exclusion below (MCC Exh. 1, CMS1):

Description	Amount (in 1000's)	Ratio
Long-term debt	$178,633	46.32%
Preferred stock	53,423	13.85
Common equity	153,635	39.83
Total capital	$385,691	100.00%

11. On February 10, 1986, the Commission received from MDU a request to accept Mr. John Renner's prefiled testimony into evidence without his personal appearance. Within this request the Applicant stated:

There are only slight differences between the two capital structures and the one pro posed by the Montana Consumer Counsel is acceptable to MDU, making this area of the rate case uncontested.

12. This Commission accepts the capital structure proposed by the MCC and accepted by MDU. This capital structure reflects the Commission's continuing belief that directly assignable debt should be matched with the utility function that such issuances support.

Cost of Capital

Preferred Stock

13. The cost of preferred stock is not a contested issue in this case. This cost is based on the embedded cost of preferred shares outstanding, and is calculated to be 9.12 percent. Both the Applicant and the MCC support this number as the cost of preferred stock. This Commission finds 9.12 percent to be appropriate for MDU's cost of preferred stock.

Long-Term Debt

14. The Applicant accepted the capital structure that was proposed by Dr. Smith as described in Finding of Fact No. 5. That capital structure carried with it a $50 million debt issuance which was expected to be sold during 1985 Assigned to that $50 million issue was an anticipated cost of 13.103 percent (MDU Exh. A, Statement F, p. 1 of 3). In the fall of 1985, MDU did issue $50 million in debt at a cost well below the expected 13.103 percent.

15. Under cross-examination by Consumer Counsel, Mr. Paine, Mr. William Glynn placed the cost of the above mentioned debt issue at 11.71 percent:

Q. And you indicated along those lines, you were talking about issuance of long-term debt. You were comparing some long-term debt with commercial paper, I believe, in a conversation with Commissioner Monahan. Did you indicate that you issued some long-term debt last fall?

A. Yes, we did.

Q. And the cost associated with that was?

A. The total cost was 11.71 percent. (TR, pp. 183-184)

16. Since the cost of the new debt issue is known, this Commission finds that an adjustment to the cost of debt is necessary. The total cost of long-term debt that reflects the known cost of new debt is 10.22 percent, as calculated below:

Total Debt		178,633
Imbedded Cost (including 13.103% issue)		x 10.61%
Yearly Interest Cost		18,953
$50M at 13.103% =	6552	
$50M at 11.17% =	5855	
Difference	697	-697
Actual Yearly Int. Cost		18,256
		178,633 = 10.22%

Common Equity

Applicant

17. Based on the testimony of Mr. William Glynn and Dr. Dennis Fitzpatrick, Mr. John Renner proposed an equity cost of 16 percent. Mr. Renner was not present at the hearing and this Commission accepted his testimony as evidence without his person al appearance.

18. Dr. Fitzpatrick based his estimate of MDU's common equity cost on the following three studies: (1) an analysis of the consolidated financial performance of MDU Resources Inc.,

(2) an equity-debt risk premia analysis for MDU, and (3) a discounted cash flow (DCF) analysis for MDU and groups of comparable utility companies. From these studies, Dr. Fitzpatrick "conservatively" estimated MDU's cost of equity to be in the 16-17 percent range (MDU Exh. F, p. 6). Dr. Fitzpatrick prepared his analysis in April, 1985.

19. In rebuttal testimony Dr. Fitzpatrick lowered his estimate 100 - 150 basis points to a range of 14.5 - 15.5 percent. Improvements in the financial markets were cited by Dr. Fitzpatrick for this "significant" drop in MDU's equity cost (MDU Exh. G, p. 4). Dr. Fitzpatrick's rebuttal testimony was based on market data through October, 1985.

20. From his analysis of MDU's consolidated financial performance, Dr. Fitzpatrick concluded that "MDU's non-utility investments have consistently subsidized the Company's utility operations n (MDU Exh. F, p. 15).

21. The debt-equity risk premia study done by Dr. Fitzpatrick used long term government bonds as the risk-free rate. To the risk-free rate he added a default risk premium required by the firm's bondholders and an equity risk premium required by the firm's common shareholders (MDU Exh. F, p. 20).

22. Dr. Fitzpatrick performed DCF studies of MDU and five groups of comparable companies to arrive at his recommendations for MDU's cost of common equity capital. The results of his studies are listed below:

	Direct Testimony (MDU Exh. F, DBF 35-40)	Rebuttal Testimony (MDU Exh. G, DBF 5-10)
MDU Res. Inc.	17.5 - 18.5%	16.3 - 17.3
20 Gas Cos.	16.4 - 17.4	16.0 - 17.0
Electric Cos. with Beta between .70 & .80	16.0 - 17.0	14.6 - 15.6
Electric Cos. with A-,B+, or B Solomon EPS Rank	15.6 - 16.6	14.8 - 15.8
Electric Cos. A rated Bonds & 0% Nuclear	16.1 - 17.1	14.3 - 15.3
Small Gas/Electric Cos.	16.3 - 16.8	14.2 - 15.2

23. The above studies reflect three upward adjustments that Dr. Fitzpatrick made to the normal DCF model: (1) a growth adjustment to the dividend yield, (2) an adjustment to the calculated return reflecting the effects of dividends being paid quarterly, and (3) an adjustment to the calculated return to reflect underwriting and flotation costs required to issue the common shares.

24. Dr. Fitzpatrick's DCF growth component is based primarily on analysts' projections. As he stated during cross-examination by MCC:

Q. And just characterize it -- back on Schedule 35 -- characterizing the various sources of data you have there. Of the nine growth rates you show as data that you considered, four of them are analysts [sic] projections. And you've already indicated that there was emphasis or weight given to those; is that correct?

A. By far the major weight is given to the analysts' projections, as I have laid out in the testimony and as I have laid out in my rebuttal testimony. (TR, p. 255)

25. Dr. Fitzpatrick's dividend yield number is derived by averaging six months of dividend yield data from a Value Line computer data base called Value Screen Plus. That number is then adjusted to reflect the sustainable growth rate listed on schedules DBF 35-40 and DBF 5-10 respectively.

MCC.

26. Dr. Caroline Smith used DCF analysis to determine the cost of equity for the electric utility industry and for MDU Resources, Inc. In her prefiled testimony, Dr. Smith recommended a 12.5 percent return on equity. During the hearing, Dr. Smith lowered her return on equity recommendation to 12 percent. While being questioned during the hearing by Consumer Counsel, Dr. Smith explained the basis for lowering her recommendation for MDU:

Q. All right Dr. Smith, this recent data, does it affect the recommendations in this proceeding?
A. Yes, it does. The numbers are different and that would affect my recommendations. Based on the data that I have in Exhibit MCC-2, the industry-wide cost of equity would drop from 12.5 to 13.5 to 12 to 13. It would drop one half of a percentage point. And exactly the same thing occurs for MDU. My recommendation, instead of being 12.5 as it was based upon earlier data, based on these data would be 12 percent even. (TR, pp. 314-315)

27. The dividend yield used by Dr. Smith is calculated by dividing the current annual dividend by the average of high and low stock prices for six months of data. The six month period for Dr. Smith's updated DCF study ran through December 31, 1985.

28. Expected growth rate was determined through a statistical analysis of growth rates in dividends, earnings and book value over a ten year period for the industry and MDU. The statistical model measures the relationship between historical growth rates and current pricing patterns to determine investors' expected growth rate.
29. Dr. Smith explained the rationale of her statistical study as follows:

Although MDU's dividend yield is a value that can be calculated, estimating the future growth which might reasonably be anticipated by investors is less straightforward. In order to determine the growth rate appropriate for estimating the cost of common
equity to MDU, I have made statistical studies of growth expectations for the electric utility industry as a whole. My statistical approach makes it possible to estimate the long-term dividend growth rates anticipated by investors for MDU in view of both the circumstances of the industry and the unique

circumstances of MDU. (MCC Exh. 1, pp. 1011)
The fact that MDU's Cost of common equity cannot be accurately determined without reference to the rest of the electric utility industry is a matter of common sense. Virtually all investors determine the prospects for a particular company with regard to conditions affecting its industry. (MCC Exh. l, p. ll)

30. Dr. Smith also performed comparable earnings studies for both MDU's industry and for the unregulated sector of the economy. Dr. Smith concluded from these studies that, "...these utilities have experienced average earnings on common equity in the 12 percent to 14 percent range over the 1974 - 84 period.(MCC Exh. 1, p. 28) She also stated that, for the unregulated sector, "In 1983, earned returns averaged 11.5 percent. The average return in 1984 was 13.2 percent." (MCC Exh. 1, p. 30)

31. Both MDU and MCC used a DCF analysis to determine the cost of equity in this proceeding; The Commission has consistently preferred the DCF approach in determining cost of equity. This model is presently the most desirable means of determining cost of equity because of its widespread acceptance as the most objective and accurate means of measuring investor expectations.

32. The dividend yields supported by both MDU and MCC incorporate a six month time period. The Commission believes this is an appropriate method for dividend yield determination because it eliminates the use of spot prices which can bias the DCF results in either direction. Both methodologies are presented in Finding of Fact Nos. 25 and 27.

33. When questioned about the data base he uses, Dr. Fitzpatrick was not very knowledgeable about the actual details incorporated by Value Line to calculate dividend yield. When asked if the dividend yield contained in the Value Screen Plus computer data base was calculated in the same manner as it is by the Value Line Investment Survey, Dr. Fitzpatrick had this response:

Q. How about methodology, would the methodology be the same in the two different sources?

A. I don't really know. They could well be. We've found that some of the data that they have in their computerized data base, the methodology is slightly different.

Q. Are you saying Value Line computes its dividends, dividend yields differently [sic] this publication versus the data base?

A. Well I'm not sure about the dividends or the dividend yields, but I know that in some data, my experience is that it's impossible to reconcile precisely the information in their electronic data base with hard copy here. That's been my experience. There's some slight differences. So I'd hesitate to say that their methodology is absolutely the same. (TR, p. 240)

34. Dr. Fitzpatrick was further questioned on the methodology employed by Value Line to compute the dividend listed at the top of the Value Line Investment Survey. That line of questioning revealed that quite possibly Dr. Fitzpatrick's unadjusted dividend yield figures may have, in fact, been previously adjusted (TR, pp. 240-244). Given the fact that the dividend yield reported by Value Line appears to have already been adjusted to reflect Value Line's expected dividend growth for the year, and Dr. Fitzpatrick's general lack of knowledge about his data base, this Commission hesitates to use the dividend yield sponsored by MDU's expert witness. The dividend yield proposed by Dr. Smith is therefore accepted at a level of 7.6 percent.

35. The DCF growth rate is more difficult to determine. This component must reflect the composite long term growth expected by all investors. The witnesses applied different methodologies to estimate the DCF growth component. Dr. Smith relied on historic growth rates as described in Finding of Fact No. 28. Dr. Fitzpatrick relied on several analysts' growth projections as explained in Finding of Fact No. 24.

36. In his rebuttal testimony, Dr. Fitzpatrick submitted the results of regression analyses of dividend yields and analysts' growth projections based on both electric utility (MDU Exh. G, DBF 12) and gas distribution data (MDU Exh. G, DBF-13). The resulting correlation coefficients were significantly higher than the correlation coefficients produced by Dr. Smith's analysis of historic growth rates. From these findings, Dr. Fitzpatrick concluded that analysts' projections are superior to historic growth rates in determining the growth expected by investors. Dr. Fitzpatrick was questioned about the companies used in his study. He responded as follows:

A. Yes. This would be all approximately 100 electric utilities surveyed by Value Line. There might be, you know, two, or three companies that might be different. I could double check that for you. (TR, p. 288)

37. MDU submitted a list of DBF-12 companies in Late Filed Exhibit No. 5. The total number of DBF-12 companies is 70 compared to the approximately 100 as testified to by Dr. Fitzpatrick. This meant that 30 percent of the sample companies were excluded from Dr. Fitzpatrick's study. Comparing DBF-12 companies with companies included in Dr. Fitapatrick's DCF studies, described in Finding of Fact No. 22, also yields questionable discrepancies. Percentages of comparable companies included in Dr. Fitzpatrick's DCF analyses that were excluded from his regression analyses range from 10 to 39 percent. The Commission does not know why these companies are comparable to MDU for DCF analyses and not comparable for regression analyses. Given these discrepancies in Dr. Fitzpatrick's analyses, this Commission rejects the conclusion that analysts' projections are superior to historic growth rates in determining growth expected by investors.

38. Dr. Smith updated her DCF study at the hearing. As described in Finding of Fact No. 26, Dr. Smith based her updated 12 percent return recommendation on data in Exhibit MCC-2. A close examination of Exhibit MCC-2 yields some unanswered questions as to Dr. Smith's growth rate calculation. A comparison of Dr. Smith's original and revised Table B-9 is conducted below:

	Original DCF Study	Revised DCF Study	Change
Dividend Yield	7.7%	7.6%	-.1%
Best Growth Rate	3.3	3.6	+.3
Most Important Growth Rate	3.3	4.2	+.9
All Growth Rates	5.6	5.5	-.1

The above table shows that one of three growth rates decreased 10 basis points as the other two increased 30 and 90 basis points respectively. The dividend yield also decreased 10 basis points. With this data it is difficult to understand why Dr. Smith would adjust her return recommendation downward and not upward.

39. The results of MCC Exh. 2, Tables B-7 and B-8, 4.2 percent and 5.5 percent, represent to the Commission the acceptable range of DCF growth rate for determining MDU's cost of equity. The three most important growth rates -- eight year book value growth, one year dividend growth, and two year book value growth -- taken together explain a large percentage of the variability in dividend yields based on the data on Table B-2(MCC Exh. 2). The Commission supports the use of the most important growth rates in the calculation of cost of equity capital because of the strong statistical correlation of the growth rates to dividend yields. The most important growth rates, therefore, represent to the Commission a very reasonable low end of the growth range in determining MDU's cost of equity. Incorporating all growth rates over a ten year period serves to give an overall view of MDU's cost of equity in relation to the industry as a whole over a large enough time period to show definite tendencies. The Commission, therefore, believes that the all growth rates analysis results in a very reasonable high end of the growth range in determining MDU's cost of equity. The Commission foresees a significant risk associated with the uncertainty of both gas supply and market conditions caused by FERC Order No. 436. The natural gas industry is also realizing increased competition from other fuel sources due to their declining prices. Taking these factors into consideration, the Commission believes that the growth expected by investors is in the high end of the acceptable range. Therefore, this Commission accepts a 5.4 percent DCF growth rate for MDU's natural gas operations in this proceeding.

40. This Commission also examined Dr. Fitzpatrick's DCF adjustments to reflect quarterly payment of dividends and to reflect issuance costs on common stock.

41. Regarding the adjustment to reflect quarterly payment of

dividends, MCC witness Dr. Smith had this to say:

> If ratepayers do pay the extra amount, and quarterly distributions continue, the return the utility earns will rise but investors will still be able to earn more than the utility does. Charging customers for reinvestment profits does not affect the availability of reinvestment profits in the market. The only result is that investors get their reinvestment profits twice -- once from customers and once again when they invest their quarterly dividend receipts. (MDU Exh. 1, p. 43)

The adjustment to reflect quarterly payment of dividends would be an unnecessary burden on MDU's ratepayers. Therefore, this adjustment is disallowed.

42. MDU is not planning to publicly issue stock in the near future, but its witness advocates a 5 - 10 percent adjustment to the cost of equity to reflect issuance costs. This adjustment would, in effect, overcompensate MDU for the issuance cost on all outstanding equity and is therefore disallowed.

43. Combining the 7.6 percent dividend yield with the growth rate of 5.4 percent yields a return on common equity of 13 percent. This level of return is within the 11.2 - 13.1 return range of Dr. Smith's Table B-9 of Exhibit MCC-2.

44. It is also interesting to note that, if Dr. Fitzpatrick's recommendation of 14.5 - 15.5 percent is reduced to reflect the disallowances discussed in Finding of Fact Nos. 41 and 42, the range becomes 13.5 - 14.5 percent. Also, Mr. William Glynn testified that MDU's cost of debt had declined 75 - 100 basis points since the fall of 1985 (TR, p. 184). Combining the fact that Dr. Fitzpatrick prepared his recommendation on market data available in October; 1985, with his belief in the validity of Equity Risk Premia Analysis, yields a return range of 12.5 - 13.75 percent.

Rate of Return

45. Based on the findings for long term debt, preferred stock, and common equity in this proceeding, the following capital structure and costs resulting in an 11.17 percent overall rate of return are determined appropriate:

Description	Ratio	Cost	Weighted Cost
Long Term Debt	46.32%	10.22%	4.73%
Preferred Stock	13.85	9.12	1.26
Common Equity	39.83	13.00	5.18
Total	100.00%		11.17%

PART C
RATE BASE

46. Consistent with previous Commission decisions, both MDU and MCC proposed a 1984 average rate base, adjusted to include certain known and measurable changes. One of the primary considerations of the Commission in rate base decisions has always been proper matching of test year income with the plant that produced that income. The Commission, therefore, finds a

1984 average rate base, adjusted for certain known and measurable changes, to be appropriate in this proceeding.

Unamortized Gain on Reacquired Debt

47. MCC's witness, Mr. Albert Clark, proposed to reduce the Company's per books rate base by an average balance of the unamortized gain on reacquired debt. Mr. Clark referred to the Commission's Order No. 5020b at pages 26 and 27 in Docket No. 83.8.58 in defense of his proposed adjustment in the amount of $67,122 (MCC Exh. 3, pp. 7-8). In its Answer Brief, MCC noted that Mr. Clark had understated the dollar amount of the adjustment as a result of allocating some of the gain to Williston Basin Interstate Pipeline Company (WBIP). MCC stated that none of the gain should have been allocated to WBIP because upon reorganization WBIP assumed none of the debt of MDU, and, there fore, WBIP should not be the beneficiary of any such gain (MCC.
-- Answer Brief, p. 25). Eliminating any allocation of such gain to WBIP results in an adjusted rate base reduction of $205,371 (MCC Exh. 3, Exh. AEC-1, Sch. 3, p. 2 of 3).

48. Mr. Clark mentioned that the portion of Order No. 5020b concerning this issue was successfully appealed by MDU in a State District Court. Clark said that he has read that portion of Judge Bennett's Opinion and Order and he disagrees with the ratemaking that results from the Judge's conclusion (MCC Exh. 3, p. 8). Clark then detailed his reasons for supporting the rate base adjustment in light of the Bennett ruling (MCC Exh. 3, pp. 8-11).

49. In his rebuttal testimony, Mr. Donald Ball of MDU responded to Mr. Clark's proposed unamortized gain adjustment. Mr. Ball said that this adjustment is unreasonable and referred to Mr. John Renner's rebuttal testimony in Docket No. 83.8.58 as support for the reasons why such an adjustment is not proper. Ball concluded by saying that the District Court's decision should be followed (MDU Exh. I, p. 1).

50. As noted by Mr. Clark of MCC on page 8 of his testimony, this issue has been appealed to the Montana Supreme Court where a decision is forthcoming. Rather than fully discussing the merits of this issue, therefore, the Commission believes that the most prudent approach to handle the issue of unamortized gain on reacquired debt is to authorize MDU to collect the revenues involved in this issue on a temporary basis, subject to refund, depending on the outcome of the Supreme Court appeal. This treatment was proffered by MCC in its Answer Brief, pages 24 through 25. Actually, MDU has been collecting such revenues since the approval on October 28, 1985, of Interim Order No. 5160 in this Docket. In that Interim Order, the Commission accepted MDU's proposed treatment of this issue in accordance with Judge Bennett's ruling. Potential refunds, accordingly, would trace back to October 28, 1985.

Depreciation

51. Mr. Clark proposed some adjustments to MDU's per books depreciation expense which result in a related rate base adjustment. Clark proposed to increase per books depreciation expense by $27,904 which caused accumulated depreciation to increase by half (average rate base) of that amount, $13,952. This increase to accumulated depreciation results in a reduction to rate base of the same amount.(MCC Exh. 3, p. 12)

52. Mr. Ball of MDU rebutted MCC's depreciation expense and rate base related proposals (MDU Exh. I, pp. 7-a). As with Mr. Clark's proposals concerning this issue, Mr. Ball's views will be thoroughly addressed in the depreciation expense portion of this Order.

53. Consistent with the Commission's decision concerning MCC's proposed adjustments to depreciation expense (see Findings of Fact 107 - 109), the Commission finds an increase to the per books accumulated depreciation (decrease in rate base) in the amount of $8,649 to be proper in this proceeding. The Company proposed an increase of $8,954. As stated above, Findings of Fact 107 through 109 more completely discuss the depreciation I issue.

Construction Overheads

54. MCC witness Clark proposed to use the same overhead construction rates as those utilized by the Company; however, he made several comments concerning those rates. Clark stated, n I am concerned with the capitalized overheads, the rates used to calculate such overheads and whether this Commission, or any regulator, has oversight in the determination of these factors" (MCC Exh. 3, p. 26). Mr. Clark expressed concern that, although the effect of using MDU's proposed overhead rates has a relative ly small rate base effect because of limited construction during the test year, the Company has indicated there will be a fairly significant construction program in the Montana service territory over the next several years which would exacerbate the issue of construction overhead rates (MCC Exh. 3, p. 26). Clark compared overhead rates since 1983 and found that the various levels of capitalization have increased from a range of 29 percent to 400 percent (MCC Exh. 3, pp. 26-27). Finally, Mr. Clark proposed no adjustments to the overhead factors, but he did recommend that the Commission investigate and evaluate these increased rates. He concluded, "These huge increases in overhead factors appear to be unwarranted in an era when labor rates and inflation simply are not moving up as rapidly as the increase in the factors would indicate. (MCC Exh. 3, p. 27)

55. The Company did not rebut Mr. Clark's statements.

56. During the hearing, Commission counsel cross-examined both Mr. Ball and Mr. Clark on this issue. Mr. Ball verified the accuracy of the overhead rate increases discussed by Mr. Clark on pages 26 and 27 of his testimony. Ball said that he had not personally verified their accuracy, but he did not challenge the percentages (TR, pp. 389-390). Ball further said that he knows that the Company studies such percentages annually and does adjust them each time, but when asked what causes such increases from year to year, Mr. Ball stated that he does not know the specific cause (TR, p. 390).

57. Under cross-examination, Mr. Clark of MCC stated that he did not know if the overhead rates should be modified in this proceeding, but the reason he expressed his concern in his testimony was because he had observed very substantial and unexplained increases in the overhead factors. He also gave the source of his information as the Company's response to MCC's onsite audit Data Request No. 8 and the Company's Statement C in this Docket. As in his pre-filed testimony, Clark reiterated his concern that MDU appears to be heading into a very substantial construction program in Montana. (TR, pp. 414-415)

58. The Commission agrees with Mr. Clark that the quite sizeable increases in the construction overhead rates are reason for concern, especially given the fact that MDU appears to be heading into a period of increased construction in Montana. Since the Company offered no explanation for why these rates increased so dramatically since MDU's last general rate case, Docket No. 83.8.58, the Commission believes that approving the construction overhead rates proposed in this Docket without a complete analysis and full discussion would be an error. Obviously, since the last rate case, MDU's construction overhead rates actually did increase, but the Company spokesperson for this topic, Mr. Ball, was unable to explain the reasons for the increases. The Commission does not believe in the rubber stamp approach to ratemaking. Although questioned, MDU did not prove the propriety of the construction overhead rates in this Docket compared to those approved in Docket No. 83.8.58. The Commission, therefore, disallows the construction overhead rates proposed by the Company in this proceeding and finds the related rates approved in Docket No. 83.8.58 to be proper in this proceeding. This adjustment results in an increase in per books rate base of $51,249, compared with MDU's proposed rate base increase of $71,856.

59. So that this issue can be more readily resolved in the future, the Commission requests that the construction overhead rates proposed by the Company in the next general rate case be fully explained, justified, and analyzed.

Materials and Supplies

60. Both the Company and MCC proposed to determine the proper level of materials and supplies in rate base on the basis of a 13-month average. This approach results in an increase in rate base in the amount of $38,461 (MDU Exh. H, p. 13; MCC Exh. 3, p. 12). This methodology was approved in Docket No. 83.8.58 and the Commission continues to believe it to be proper. The Commission,

therefore, finds an increase in materials and supplies in the amount of $38,461 to be proper in this proceeding.

Prepayments

61. Both the Company and MCC proposed to determine the proper level of prepayments in rate base on the basis of a 13 month average. This approach results in an increase in rate base in the amount of $2,245 (MDU Exh. H, p. 13; MCC Exh. 3, p. 12). This methodology was approved in Docket No. 83.8.58 and the Commission continues to believe it to be proper. The Commission, therefore, finds an increase in prepayments in the amount of $2,245 to be proper in this proceeding.

Total Rate Base

62. As a result of the approved adjustments described above, the Commission finds the proper amount of total 1984 pro forma average rate base, adjusted for known and measurable changes, to be $15,493,122.

PART D
REVENUES, EXPENSES, AND REVENUE REQUIREMENT

63. Mr. Ball, of MDU, sponsored exhibits and testimony which detailed the cost of service and average rate base amounts which support the revenue increase request of $5,219,108. The request was based on an overall rate of return of 12.228 percent. Mr. Ball indicated that the Company utilized a 1984 historical test period as a basis for its filing and made various 1985 adjustments. Mr. Ball concluded that, based on the test period ending December 31, 1984, the Company would require additional revenues of $5,319,108 in order to earn an overall return of 12.228 percent (MDU Exh. H, pp. 14-15).

64. Mr. Clark, expert witness for MCC, presented testimony and exhibits on the cost of service and the proper rate base. Mr. Clark urged the use of an average 1984 rate base, as was also proposed by the Company, adjusted for certain known and measurable changes. He prepared a series of schedules and presented related testimony which culminates with the change in revenues required to produce the 11.16 percent rate of return recommended by MCC witness, Dr. Caroline Smith. Mr. Clark concluded that, based on the 1984 average test year, the Company requires additional permanent revenues of $4,034,614. During the hearing, Dr. Smith revised her rate of return recommendation in this proceeding to 10.96 percent (TR, p. 317). In accordance, Mr. Clark calculated the impact of this revision on MDU's revenue requirements, a reduction of $61,392 (TR, p. 411).

Operating Revenues

65. MDU proposed several adjustments to revenues. The first adjustment decreased revenues by $9,935,581 to reflect the full annual effect of current rates which became effective June 1, 1985. The second adjustment increased revenues by $795,746 to reflect normal weather, since the weather during 1984 was warmer than normal. The third adjustment, a net revenue decrease of $5,240,999, restates revenue from contract industrial sales

volumes to expected sales levels. The net effect of the above adjustments to operating revenues results in pro forma revenues of $57,408, 720. (MDU Exh. H, pp. 7-8; Exh. DRB-4, p. 1 of 2)

Current Rates

66. MCC witness Clark proposed to adjust per books revenues to reflect the current PGA rate that MDU is passing through to Montana ratepayers. Clark noted that his proposed adjustment "corresponds in principle and amount" with the same adjustment proposed by MDU (MCC Exh. 3, pp. 17-18). The Commission has historically agreed with the principle of reflecting the effect of currently approved gas rates and, therefore, finds this adjustment to be proper in this proceeding, resulting in a decrease in per books revenues of $9,935,581.

Weather Normalization

67. MCC witness Clark proposed to adjust per books revenues "to reflect increased gales to residential and commercial customers if test year weather conditions had been normal" (MCC Exh. 3, p. 18). Clark noted that his proposed adjustment "corresponds precisely" with the same adjustment proposed by MDU (MCC Exh. 3, p. 18). The Commission has historically agreed with the principle of reflecting the effect of normal weather conditions and, therefore, finds this adjustment to be proper in this proceeding, resulting in an increase in per books revenues of $795,746.

Industrial Sales

68. In its proposal to adjust test year industrial sales volumes, MDU annualized the actual level of such sales for the first five months of 1985. MCC witness Clark proposed to use the actual industrial sales volumes for the 12 months ended August, 1985, adjusted to reflect the current status of certain customers. Based on this data, Mr. Clark proposed to reduce per books industrial sales revenues by $3,997,639, compared with MDU's reduction proposal of $5,240,999 (MCC Exh. 3, pp. 18-19). The Company did not rebut the MCC proposal. The Commission has historically preferred the use of actual data rather than projections and estimates, and, therefore, finds Mr. Clark's method of measuring industrial sales volumes to be appropriate in this proceeding with one exception.

69. Mr. Clark made some adjustments to the actual industrial sales volumes for the 12 months ended August, 1985, concerning, among others, Great Western Sugar Company (GW). In his testimony he stated, "I have increased the Great Western volumes to 88,767 Mcf to reflect actual volumes for the twelve months ended August 1985 that do not agree with the volumes included in the line 1 amount" (MCC Exh. 3, p. 19). In his exhibit detailing this calculation, Mr. Clark referred to the Company's responses to MCC (Drzemiecki) Data Request No. 37 as the source for the proposed level of GW sales volumes, 88,767 Mcf (MCC Exh. 3, Exh. AEC-1, Sch. 2, p. 4b). The Commission could not ascertain this figure from that Data Response. The Commission did, however, find pertinent information concerning GW in the Company's response to PSC staff audit Data Request No. 29, part a, Attachment A, page 1 of 6. (All Company responses to Data Requests are designated as MDU Exhibit B.) This exhibit shows zero sales volumes to GW in 1985 for the reason, as explained in Footnote 3 and part c of the response to Data Request No. 29, that GW is utilizing transport

gas. Based on this evidence, the Commission finds the exclusion of GW sales volumes (88,767 Mcf) from Mr. Clark's calculation of the appropriate level of industrial sales volumes to be proper in this proceeding. Reflecting the exclusion of GW sales volumes from Mr. Clark's proposed level results in a reduction in industrial sales revenues of $4,403,305. MDU's transactions with GW, therefore, will be reflected in the discussion concerning Rate 82 transportation gas.

Transportation of Gas - Rate 97

70. MDU Exhibit L shows the amount of gas that MDU sold and transported to certain industrial customers - Holly Sugar, Conoco, and Farmers Union (Cenex) - during the years 1983 through November of 1985. In its filing, MDU had included revenues from the transportation of gas to Holly Sugar in the amount of $17,439 (PSC staff audit Data Request No. 29, Part b, Attachment B), excluding the volumes transported to Conoco and Cenex. In response to PSC staff audit Data Request No. 29, part j, MDU reported that in 1985 the Company had not charged Conoco for any of the transportation services. This failure to charge a customer for services rendered explains why MDU did not include any such revenues in this filing, even though MDU has been transporting gas to Conoco and Cenex since 1983. MDU ceased transporting any gas to Cenex after November of 1984 (MDU Exh. L).

71. In November of 1985, the Commission approved revisions to the Rate 97 gas transportation tariff. Prior to the revisions, only Holly Sugar had qualified as a Rate 97 customer, but, after the approved changes to that tariff, both Conoco and Cenex also qualified for Rate 97 transportation of gas. The Commission views this as a known and measurable change and believes that the volumes transported to Holly Sugar and Conoco in 1985 should, therefore, be included in this case. The use of 1985 volumes is proper because they are known and measurable and reflect the fact that Cenex did not receive any transport gas from MDU in 1985. Since MDU Exhibit L reported data only through November of 1985, the Commission included Holly Sugar and Conoco's December, 1984, transportation volumes with the 1985 data so that 12 months of figures could be utilized in the imputation of Rate 97 revenues. Based on this analysis, the Commission, therefore, finds an increase in per books revenues in the amount of $36,811 to reflect increased Rate 97 revenues from the transportation of gas to be proper in this proceeding.

72. This revenue adjustment does not address the issue of the possible impropriety or illegality of MDU transporting gas to industrial customers free of charge and without the existence of an approved tariff dedicated to that specific transportation service. Based on the evidence contained in this record, the Commission believes that MDU has violated Montana utility law by providing free and untariffed transportation service, by providing service to a customer not eligible for the rate charged, and by providing free service to customers who were eligible to be charged tariffed rates. If a utility were allowed to engage in such conduct, well-informed and fair regulation would be frustrated. The Commission concludes that the proper course of action with respect to these violations is to initiate a civil action to seek recovery of fines.

Transportation of Gas - Rate 82

73. In response to PSC staff audit Data Request No. 29, part b, Attachment B, MDU showed that in 1985 the Company transported gas to Great Western Sugar Company and Exxon under gas transportation Rate 82. Per the same PSC request, the Company provided annualized volumes of this service. Because the Commission views the approval and subsequent use of Rate 82 as a known and measurable change, the Commission believes that the revenues from this service should be reflected in this rate case on an annualized basis. The annualization is necessary to adjust for the fact that Rate 82 was not approved until July of 1985 (and revised in November of 1985) so that the rates resulting from this Order will reflect Rate 82 being in effect for a full year. Using MDU's calculation of the annualization of these transportation volumes (PSC staff audit Data Request No. 29, part b, Attachment B), the Commission finds an increase to per books revenue in the amount of $251,874 to reflect annualized Rate 82 revenues to be proper in this proceeding.

Total Revenues

74. The Commission determines that, based on the above discussions concerning operating revenues, the resulting approved pro forma revenues are $58,535,099.

Expenses

Gas Loss Factor

75. MDU proposed to use a gas loss factor of 3.55 percent. MCC witness Clark proposed to use a loss factor of 2.42 percent, or, as an alternative, the same loss factor as was used in Docket No. 83.8.58, 2.77 percent. (MCC Exh. 3, pp. 1317)

76. Mr. Clark disagreed with MDU's proposed loss factor because it represented a very significant increase over the loss factor

used in the Company's previous Montana gas case, Docket No. 83.8.58. He concluded, "It appears that the requested increase in the loss factor can only be attributed to an extreme deterioration of MDU's distribution system in Montana between 1982 and 1984 or to an erroneous determination of the loss factor." Clark then explained that-~there were wide fluctuations in the Montana distribution loss factor since 1982 ranging from a low of 0.96 percent in 1983 to a high of 7.32 percent for the twelve months ended July, 1984. As a result, Clark determined that it would not be reasonable to rely on any of this evidence past 1982 in order to determine an appropriate Montana loss factor. Mr. Clark's recommendation, therefore, is that the Commission approve a loss factor of 2.42 percent, which represents the losses for the twelve months ended December, 1982. As an alternative, he recommended the use of the loss factor approved in Docket No. 83.8.58, 2.77 percent. (MCC Exh. 3, pp. 1317) MDU Docket No. 85.7.30, Order No. 5160a 27

77. MDU witness Ball rebutted MCC's gas loss proposal. Mr. Ball said that he believed Clark's selection of the 2.42 percent was arbitrary and is far outside the test year, not being representative of current operations. In an effort to determine a proper loss factor which would be more representative of current conditions, Ball calculated an alternative loss factor using the average for the period January, 1983, through September, 1985, which yielded a loss factor of 3.14 percent. He believed this calculation was superior to that of Mr. Clark and stated, "The calculation brackets the test year and is tempered by the use of 1983 data which the Company believes to be too low and 1984 data which Mr. Clark believes to be too high.~ Mr. Ball concluded that he continued to recommend the use of the Company's 3.55 percent loss factor as filed for in this case, but would support the use of 3.14 percent loss factor as an alternative. (MDU Exh. I, pp. 2-3)

78. The issue of determining a proper gas loss factor in this proceeding has been greatly complicated by data that appears to be unreasonable, both on the high and low side, for the years 1983 and 1984 (TR, pp. 391-392). The Commission believes that this problem of unrepresentative loss figures for the test year and the year preceding the test year is what led Mr. Clark to advocate the 1982 loss factor of 2.42 percent as being the last year that presented a reasonable loss figure. The Commission agrees with the Company that the use of 1982 data to determine a proper loss factor for a case with a test year of 1984 is somewhat unreasonable, but Mr. Clark's effort to present a reasonable loss factor is well taken by the Commission. MDU's proposed loss factors of 3.55 percent and 3.14 percent are simply unreasonably high given the preponderance of evidence that indicates that the loss factor has been decreasing and is definitely expected to continue that trend. MDU Exhibit I, Exhibit DRB-5, page 2 of 2, shows that since July of 1984 the loss factor has been steadily decreasing from 7.32 percent down to 2.07
percent in September of 1985. MDU s response to part d of PSC staff audit Data Request No. 28 shows a definite trend of expected decreasing loss factors from 1984 through 1993. These observations seem quite logical considering the extensive Billings (Montana) Main Improvement Program which is scheduled to continue through 1992 (MDU Response to PSC staff audit Data Request No. 28, part c). This project is important in determining a reasonable level of gas losses because Billings is by far MDU's largest sales area in Montana. The condition of the Billings distribution system has been apparently quite poor, including corrosion, bare pipes, and uncoated pipes (TR, pp.61-61). The Commission believes that as that program progresses the loss factor in Billings will steadily decline until it more closely approaches the more reasonable loss factors of the Glendive and Wolf Point divisions (MDU Response to PSC staff audit Data

Request No. 33, Attachment A). This gradual decline in the Billings loss factor will have a marked effect on the overall Montana loss factor because of the volume of sales in Billings compared to the sales volumes of the rest of the MDU service territory in Montana.

79. The Commission's main concern in this matter, then, is to determine a gas loss factor that is both accurate and reasonable. After much analysis of all the different tables, exhibits, and testimony presented by both MDU and MCC concerning this issue, the Commission concluded that the gas loss factor which most closely meets the tests of accuracy and reasonableness can be found in MDU's response to the PSC staff audit Data Request No. 33, Attachment A, which shows a Montana gas loss factor for the twelve months ending November, 1985, of 2.68 percent. This figure meets the accuracy test in that it represents actual data for a period immediately following the end of the test year so that this loss factor can be accepted as a known and measurable change. This loss factor also meets the reasonableness test in that it is between the proposals of MDU and MCC and reflects the

expected effects of the Billings Main Improvement Program (reducing the Billings loss factor). Under cross-examination by PSC staff counsel, MDU witness Ball testified that he does not have a problem with using the actual 1985 loss factor in this Docket (TR, p. 394). Based on the above discussion, therefore, the Commission finds the use of 2.68 percent as the proper gas loss factor in this proceeding.

Cost of Gas

80. In its filing, MDU restated test year cost of gas to the level of WBIP's FERC tariff effective May 1, 1985, which represents the price that MDU must pay WBIP for purchase of its gas. The resulting adjustment was an increase to the cost of gas in the amount of $48,844,220. The volumes used in calculating this proposed cost of gas included the normalization of weather and industrial demand adjustments to the Company's proposed level of sales volumes. This adjustment matches the cost of gas for expense purposes to the cost of gas included in the rates used to determine the Company's proposed revenue adjustments. The Company's resulting proposed pro forma cost of gas is $49,357,341. (MDU Exh. H, p. 8, Exh. DRB-4, p. 1)

81. MCC witness Clark mirrored the Company's proposed cost of gas adjustments with two exceptions. Mr. Clark incorporated his own proposed gas loss factor and industrial sales level resulting in a pro forma cost of gas of $49,907,621. (MCC Exh. 3, pp. 17-19, Exh. AEC-1, Sch. 1, p. 1)

82. The Commission has historically endorsed this concept of matching gas sales rates with gas purchase rates and continues to find this approach proper in this proceeding. Keeping in mind the previously discussed Commission decisions concerning the proper level of gas loss factor and residential, commercial, and

industrial sales volumes in this proceeding, the Commission, therefore, finds the proper cost of gas to be $49,659,556.

83. The Commission takes this opportunity to encourage the Company to reevaluate its gas acquisition policies in light of current market conditions. Mr. Maichel testified that gas from MDU' s existing supplier - its sister corporation, WBIP will be increasing in cost by roughly 400. This stands in marked contrast to current market trends wherein price has turned sharply downward. The Commission is disappointed to discover that MDU declined to participate in WBIP's rate application before the FERC; at the very least, it seems that MDU' s evaluation of such filings should be conducted by personnel other than those who prepared them on behalf of WBIP.

84. MDU has recently been afforded additional flexibility to pursue alternative gas supply. WBIP's tariffs have been modified so that the "full requirements" provision relating to MDU has been removed, and new transportation rates available to MDU have been established. The Commission understands that MDU has formed a "task force" to examine its purchase practices; this is encouraging, and the Commission urges the Company to conclude this study as expeditiously as possible. The Commission agrees that changing circumstances require examination of MDU' s gas purchase practices, and intends to use forthcoming opportunities to do so.

Labor Expense

85. MDU's proposed labor expense was developed by applying a percentage increase to the test year labor costs (excluding commissions, bonuses, and other in conformance with previous Commission ruling) recognizing wage increases in 1985 and using the average number of test year employees in the calculation. This annualization of labor expense resulted a proposed adjustment of $201,782 as an increase to labor expense.

86. Mr. Clark proposed an increase in per books labor expense in the amount of $151,245. The difference in the two proposals is based on two factors. Clark used the average of regular full-time employees from January to August, 1985, whereas the Company used the average test period employees level to calculate the allowable percent increase over the per books amount. The second factor contributing to the difference in proposals is that Mr. Clark did not apply any pro forma increase to officers' salaries above the per books level. (MCC Exh. 3, pp. 19-20)

87. Concerning the first factor, level of employees, Mr. Clark based his proposal on his analysis which showed that the employee levels have been decreasing since the end of the test period. He stated that his proposal is probably conservative given the August, 1985, level of employees (MCC Exh. 3, p. 20). This type of adjustment has repeatedly been denied by the Commission primarily for matching reasons. The test period is used as the basis for determining proper levels of expense, and tying the test year level of employees with the costs incurred during that same time frame seems appropriate. Recognizing wage increases for that same level of employees beyond the end of the test year as known and measurable changes is also appropriate as such recognition does not cause any matching problems. The Commission, therefore, does not accept MCC's proposal to use a post test year level of employees to calculate the allowable percent increase

over the per books amount.

88. Concerning the second factor, officers' salaries, Mr. Clark withdrew this portion of his proposed labor adjustment during the hearing (TR, pp. 413-414).

89. Based on the above discussion concerning labor expense, the Commission finds the Company's proposed labor expense adjustment, an increase to the per books level in the amount of $201,782, to be proper in this proceeding.

Payroll Taxes

90. The approved adjustment to labor expense results in an $18,146 increase in FICA taxes. This adjustment, however, must be refined to reflect Mr. Clark's determination that there was an overallocation of per books FICA expense. Clark testified:

> The Company's allocation results in an expense that is 7.25 percent of the allocated wages and salaries. Since the 1984 FICA rate was only 7 percent, the allocated expense cannot exceed 7 percent of wages.

Therefore, I have reduced the per books allocated amount to 7 percent of allocated wages and salaries. (MCC Exh. 3, p. 28)

The Company did not rebut Mr. Clark's proposal. The Commission agrees with Mr. Clark's assertion in that allocating more expense to Montana than the tax rate would have allowed is not reasonable. This adjustment reduces the per books FICA tax amount by $12,605 (MCC Exh. 3, Exh. AEC-1, Sch. 2, p. lla). The resulting approved increase to per books FICA taxes is $5,541, which reflects the 1985 FICA tax level and Mr. Clark's allocation refinement and coincides with the Commission approved labor adjustment.

Insurance and General Office A&G Expenses

91. While arguing against Mr. Clark's proposed labor expense adjustment, Mr. Ball of MDU, in his rebuttal testimony, recommended that the Commission should reject the labor adjustment proposed by Mr. Clark with respect to the number of employees unless it recognizes increased insurance and general office administrative and general (A&G) expenses as known and measurable changes (MDU Exh. I, p. 9). Mr. Ball explained that these increased costs are known and measurable and should, therefore, be recognized in this case. He said that the Company's insurance expense for Montana has increased by $57,582 over the 1984 levels (MDU Exh. I, p. 3). Concerning the General Office A&G expenses, Ball said that, now that historical cost data exists for the allocation of such costs between MDU and WBIP, the Company understated Montana's portion of these costs in this case by $368,769 (MDU Exh. I, p. 5). During the hearing, Mr. Ball testified:

Q. Would it be fair to characterize your rebuttal testimony to

the effect that you would agree with Mr. Clark's waiver [labor] adjustment so long as the Commission would include your proposed adjustments for insurance and A&G expense?
A. That was precisely the point of my rebuttal. If we're going to look forward, for example in this case on the number of employees, which is a known and measurable change, let's look at other known and measurable changes right along with it. (TR, p. 395)

92. Mr. Clark of MCC also discussed these two adjustments proposed by MDU in Mr. Ball's rebuttal testimony. He indicated that the increased insurance expense would be known, measurable, and historical at this point (TR, p. 418). Concerning the increased General Office A&G expense, however, Mr. Clark stated that he would have some problems with that adjustment (TR, p. 418). He said that there are many ways to allocate costs and that he would not agree that this is a known and measurable change (TR, p. 418).

93. The Commission understands why MCC witness Clark drew a distinction between the increased insurance expense and the increased General Office administrative and general expense. The former represents an actual expense that, apparently, MDU has incurred and paid in 1985, whereas the latter is the result of the allocation of certain costs. The insurance costs represent a post-test year. expense that might sometimes be accepted by the Commission, but not in this proceeding. Before any expenses, such as increased labor costs due to negotiated contract changes in effect after the end of the test year, can be accepted by the Commission, they must first withstand the scrutiny and analysis of proper discovery and testimony, but, as Mr. Clark points out upon cross-examination, "I certainly did not have any opportunity to gather any data on them [the two aforementioned adjustments proposed in Mr. Ball's rebuttal testimony] n (TR, p. 418). The increased insurance expense fails this test, and that in itself is enough reason not to allow this proposed adjustment in this proceeding. The Commission agrees with Mr. Clark that the increased General Office A&G costs represent a change in the proposed method of allocating such costs, a method which was not the subject of discovery because it was not proposed until the Company's rebuttal testimony was filed. After his analysis of the Company's initial filing, Mr. Clark apparently found no quarrel with the proposed method of allocating the General Office A&G expenses, but, without the benefit of discovery, Mr. Clark is unable to endorse this new method of allocation. As Clark said under cross-examination, there are many ways to allocate costs (TR, p. 418). Moreover, MDU, as stated by Mr. Ball (see above), tied together these two adjustments to MCC's proposed adjustment to labor expense, which was denied by the Commission in this proceeding. The Commission, therefore, denies the Company's rebuttal proposal to recognize increased costs associated with insurance expense and General Office A&G expense.

Fringe Benefits

94. MDU proposed to reduce per books level of fringe benefits expense due to a change in pension funding and workmen's compensation (MDU Exh. H, p. 9). MCC proposed the identical adjustment (MCC Exh. 3! P. 20). The Commission, therefore, finds the reduction in fringe benefits expense in the amount of $17,951 to be proper in this proceeding.

Rate Case Expense

95. The Company's proposed calculation of rate case expense incorporated the accounting procedure adopted by the Company effective January 1, 1985, which recognizes the previously authorized amount as an expense for book purposes and includes a balancing provision (MDU Exh. H, p. 9). MCC proposed the same adjustment (MCC Exh. 3, p. 21). The Commission, therefore, finds the reduction in rate case expense in the amount of $35,130 to be proper in this proceeding.

Advertising Expense

96. In accordance with past Commission policy, the Company proposed to eliminate promotional and institutional advertising expenses (MDU Exh. H, p. 9). MCC proposed the same adjustment with an additional proposal to disallow $4,049 relating to MDU's "Straight Talk" campaign. After reviewing a FERC Audit Report and a sample of this campaign, Mr. Clark concluded that this expense should be considered promotional in nature, as was similarly concluded by the FERC staff, and should be removed (MCC Exh. 3, p. 21). The Company did not challenge Clark's proposed adjustment. The Commission agrees that the Straight Talk campaign was promotional in nature and the related expenses should be eliminated in this rate case. The Commission, therefore, finds the reduction in advertising expense in the amount of $16,588 to be proper in this proceeding.

Postage Expense

97. MDU proposed to adjust the per books postage expense to reflect the February 17, 1985, postage increase (MDU Exh. H, pp. 9-10). Mr. Clark of MCC proposed to reduce the per books amount of postage expense substantially as a result of two factors. The first is a refinement of the percentage increase from 6.7 percent to 6.6537 percent. The second reflects a reduction of general office postage expense allocated to Montana gas operations (MCC Exh. 3, pp. 21-23). During the hearing, Mr. Clark withdrew the second factor in his proposed adjustment, which results in a proposed adjustment almost identical to the amount proposed by the Company (TR, pp. 419-420). Based on the fact that MDU's proposed percent increase (6.7) is a rounded figure and MCC's proposed percent increase (6.6537%) is a precise figure, the Commission finds the use of Mr. Clark's figure to be appropriate. The Commission, therefore, finds the increase in postage expense in the amount of $11,429 to be proper in this proceeding.

Elimination of Income Tax Rounding and Prior Years Adjustments

98. The Company proposed two adjustments that provide for the elimination of prior years adjustments and rounding to adjust current income taxes to the amount calculated for Montana based on test period data and to eliminate the prior years and closing filing adjustments in the deferred taxes (MDU Exh. H, pp. 11-12). Although MCC witness Clark did not address these proposed adjustments in his testimony, upon cross-examination, Mr. Clark stated that he agreed with the Company's proposed adjustments and leaving them out of his testimony was merely an oversight (TR, p. 417). The Commission agrees with both MDU and MCC that these adjustments are commonly made and, therefore,
finds an increase to current income taxes in the amount of $6,034 and a decrease to deferred taxes in the amount of $3,423 to be proper in this proceeding.

Amortization of Pre-1974 Gain

99. In his proposed adjustments, Mr. Clark included an allowance for the amortization of pre-1974 profit on debt reacquired at a discount. Mr. Clark explained:

Before 1974, MDU credited the gain on reacquired debt directly to retained earnings. Since 1974, the gains have been credited to Account 257 - Unamortized Gain on Reacquired Debt. This account has been treated in the past as a rate base deduction. But, the pre 1974 gains are not included therein. Therefore, as this Commission has previously ruled in MDU rate cases, I propose to credit income for the amortization of the pre-1974 gains on reacquired debt. (MCC Exh. 3, p. 29)

100. The Company did not rebut Mr. Clark's proposal, and the Commission has consistently ruled that pre-1974 profit from reacquired debt should be flowed through over time to consumers to reflect a benefit to those who had been paying for the cost of the debt before being reacquired. The Commission, therefore, finds an increase to net operating income in the amount of $14,000 to reflect the pre-1974 gain on reacquired debt, as proposed by MCC, to be proper in this proceeding.

Palm Springs Meeting

101. In response to PSC staff audit Data Request No. 31, MDU provided, by location, the costs of each 1984 quarterly meeting of the Board of Directors. The four meetings were held in Palm Springs, California, Williston, North Dakota, Billings, Montana, and Bismarck, North Dakota (MDU Response to PSC staff audit Data Request No. 31). Under cross-examination by staff counsel, Mr. Maichel of MDU discussed the expenses relating to the meeting held in Palm Springs, California. He explained that the February meeting, regardless of where it is held, is usually a three-day meeting, while the other three meetings during the year last between a day and a day and a half (TR, pp. 68-70).

102. The amount of money involved in this issue is very small, but the principle involved is important to the Commission. The Commission will not tell the Company where to hold its quarterly Board of Directors meetings, but the Commission will not allow the ratepayers to pay for any costs associated with such meetings

held outside the Company's service territory. Comparing the cost of the three-day meeting versus the average daily costs of the other meetings gives the proper method of allowing ratepayers to pay for the costs of the February meeting as if it were held within MDU's service territory.

The Commission, therefore, finds a reduction to Board of Directors meetings expense in the amount of $492 to be proper in this proceeding.

Association Dues

103. Mr. Ball of MDU proposed to restate the industry association dues "to assign to Montana those dues which are directly related to Montana and the appropriate portion of those association memberships which are of a company-wide nature and thus benefit all of Montana-Dakota's customers" (MDU Exh. H, p. 10). The Company's proposed adjustment would decrease expenses by $41,411. MCC witness Clark proposed an adjustment which went beyond the level proposed by MDU by approximately $19,000. Based on some guidelines for exclusion (MCC Exh. 3, Exh. AEC-1, Sch.2, p. 8b), Mr. Clark excluded the costs associated with some organizations because they "simply do not benefit Montana gas customers in any way" and others to comply with Order No. 5020b in Docket No. 83.8.58 (MCC Exh. 3, p. 23).

104. MDU did not rebut Mr. Clark's proposal and did not cross-examine him about this issue during the hearing. In its Opening Brief, however, the Company did object to the MCC proposal even though it noted that Clark's adjustment "is in substantial accordance with this Commission's decision in PSC Docket 83.8.58" (MDU Opening Brief, p. 6). On the same page of MDU's Opening Brief, the Company complains that Clark is substituting his judgment for that of MDU's management in determining which of the dues expense should be shared and split between the ratepayers and the stockholders.

105. The Commission disagrees that Mr. Clark is attempting to substitute his judgment for that of the Company's management. As is true with any expense, the Company makes the decision whether or not to incur a dues expense. The incurrence of that expense, however, does not by itself bind the ratepayer automatically to pay for that expense. That cost, like any other, must be scrutinized in a rate case setting before it can be reflected in the rates. In the last MDU gas rate case (Docket No. 83.8.58, Order No. 5020b, pp. 39-41), the Commission expressed

much concern about the Company's association dues expense and stressed that all such dues must be fully explained, justified, and quantified in the next general gas case, which is the current Docket. Mr. Clark paid much more heed to the Commission's desires in that Order than did the Company in that he established a reasonable set of criteria for determining who should be responsible for shouldering the dues on an individual basis. The Company may, of course, continue to pay dues or give contributions to whatever groups or organizations it chooses, but the Commission will continue to scrutinize such costs to determine the degree of ratepayer responsibility and benefit for ratemaking purposes. The Commission, therefore, finds a reduction in per books association dues expense in the amount of $60,446 to be proper in this proceeding.

Mileage Reduction

106. In response to PSC staff audit Data Request No. 30, the Company reported that the 1985 Montana savings for its mile age reduction program was $43, 184. During cross-examination by staff counsel, MDU witness Maichel stated that these savings should be permanent and remain about the same (TR, pp. 65-66). Based on this information, the Commission finds a reduction in mileage expense in the amount of $43, 184 to be a known and measurable change and, therefore, proper in this proceeding.

Depreciation Expense

107. MDU's proposed depreciation rates were based on a 1982 study and an internal study completed in 1984 and reflected new depreciation rates for communication and computer equipment (MDU Exh. H, p. 10). MCC witness Clark proposed several changes in the calculation of depreciation expense: 1.) certain computer equipment in both general and common plant should be depreciated at the same rate; 2.) a computational error for Account 397 should be corrected; 3.) certain telemetering equipment in both general and common plant should be depreciated at the same rate; and 4.) based on the above three changes, the composite rates for construction overheads to be added to completed construction not classified as of December 31, 1984, change (MCC Exh. 3, pp. 24-25).

108. In his rebuttal testimony, MDU witness Ball disagreed with the first and third proposals of Mr. Clark. Mr. Ball said that Clark's assertion that certain sub-accounts should be depreciated at the same rate regardless of whether the equipment is in general or common plant is not valid. Ball stated, "Each MDU

functional group is different with respect to unrecovered service value, average remaining life, and the technology of the installed equipment." He also noted that much of the existing equipment in question is becoming obsolete due to rapid technological changes. (MDU Exh. I, p. 8)

109. During cross-examination, Mr. Ball verified that the Company does not disagree with Clark's second proposed change (TR, p. 377). Concerning MCC's proposed items 1.) and 3.), the Commission appreciates Mr. Clark's effort to fine-tune the Company's depreciation rates and would certainly encourage MCC in future rate cases to continue to closely evaluate this very important issue, but in this case the Commission cannot agree with MCC's findings. Different depreciation rates for equipment similar in

nature but with different remaining life, technology, and classification seems reasonable, especially whereas the Company's proposed rates result in an adjustment just slightly different than that of MCC. In denying MCC's proposal, except for item 2.), the Commission encourages MCC to revisit this issue in the next MDU case. The Commission, therefore, finds an increase in depreciation expense in the amount of $20,624, including the effects of accepting the second part of Mr. Clark's proposal, to be proper in this proceeding.

Ad Valorem Taxes

110. In its original filing, the Company proposed to adjust ad valorem taxes to reflect an increase in the Montana property valuation in 1985, which resulted in a proposed increase of $52,971 (MDU Exh. H, pp. 10-11). MCC witness Clark proposed to use actual 1985 figures provided by the Company in response to PSC Data Request No. 22 (MCC Exh. 3, p. 27). The Company did not rebut Mr. Clark's proposal. The Commission agrees with Mr. Clark that the use of actual data is much preferred over the use of projections or estimates and finds, therefore, an increase to the per books ad valorem taxes in the amount of $38,860 to be proper in this proceeding.

Interest Synchronization

111. MCC witness Clark calculated pro forma interest expense using the same procedure used by the Company in its exhibit. The interest expense Clark calculated is somewhat lower than the Company's because he used his adjusted rate base and MCC witness Smith's weighted debt cost rather than the rate base and weighted debt cost proposed by MDU. The Commission finds that a pro forma interest adjustment is proper to reflect the tax effect of interest on construction. By utilizing the approved rate base and weighted cost of long-term debt in the methodology, the Commission finds an increase to Montana Corporation License Tax in the amount of $4,801 and an increase to Federal Income Tax in the amount of $30,510 to be proper in this proceeding.

Revenue Requirement

112. The following table shows that additional annual revenues in the amount of $4,023,736 are needed by the Applicant in order to provide the opportunity to earn an overall return of 11.17 percent:

MONTANA-DAKOTA UTILITIES COMPANY -- Docket No. 85.7.30
FINAL Revenue Requirements Chart
To Produce 11.17% Rate of Return
Test Year: December 31, 1984

	MDU Per Books	Total Accepted Adjustments	Final Accepted Pro Forma	Approved Revenue Increase	Approved Final Total
Operating Revenues	$71,789,554	($13,254,455)	$58,535,099	$4,023,736	$62,558,835
Expenses:					
Cost of Gas	$513,121	$49,146,435	$49,659,556		$49,659,556
Operating and Maintenance	8,128,071	39,420	8,167,491		8,167,491
Total 0&M Expenses	8,641,192	49,185,855	57,827,047		57,827,047
Depreciation	1,097,509	20,624	1,118,133		1,118,133
Taxes Other Than Income	902,297	31,147	933,444	$4,024	937,467
State Income Taxes	0	(4,213,414)	(4,213,414)	271,331	(3,942,084)
Federal Income Taxes - Current	0	(26,769,434)	(26,769,434)	1,724,256	(25,045,178)
Total Income Taxes	29,546,372	(30,982,848)	(1,436,476)	1,995,586	559,110
Deferred Income Taxes	31,850	(3,423)	28,427		28,427
Investment Tax Credits	374,467	0	374,467		374,467
Amortization of Invest. Tax Cr.	(2,398)	0	(2,398)		(2,398)
Total Operating Expenses	$40,591,289	$18,251,354	$58,842,643	$1,999,610	$60,842,253
Amortization of Pre-1974 Gain	0	14,000	14,000		14,000
Net Operating Income	$31,198,265	($31,491,809)	($293,544)	$2,024,126	$1,730,582
	===========	=============	===========	===========	===========
Average Rate Base	$15,409,816	$83,306	$15,493,122		$15,493,122

	===========	=============	===========	===========	
Rate of Return	202.46%	-1.89%			11.171
	=====	===========			===========

PART E
OTHER ISSUES
Saco Cutbacks

113. During the Malta "satellite" hearing, a Saco resident, Mr. James Hanson, testified in opposition to the announced closure of the Saco MDU office and reassignment of the service man to Malta, Montana. Mr. Hanson, the Saco Chamber of Commerce and Agriculture, the Town Council, and approximately 80 Saco customers have contacted the Commission with information on how the personnel reductions would affect the community and their natural gas service. Much of the testimony concerns special problems these customers encounter due to the fact they are served with "wet gas" which is neither compressed nor dried before delivery to the customer. The consumer input indicates this unique situation causes frequent instances of freeze-ups that require prompt attention to avoid potential health problems, economic losses, and unacceptable periods without service.

114. MDU states that the cutbacks are necessary in MDU's efforts to reduce the cost of providing service. The Company contends that it can adequately meet the needs of its Saco customers without an office in that town by transferring the office functions to Malta and instituting a drop box payment plan in Saco for those customers who do not like to mail their payments.

115. MDU disputes the number of times Saco residents call upon a serviceman, and the Company states that with improved roads the Malta service department will adequately meet the needs of the Saco customers.

116. In reviewing this contested issue, the Commission finds that the Company's efficiency plans in Saco must be evaluated on the basis of what service level is needed to protect the public safety and comply with the utility obligation to adequately serve

its customers. The Commission is mindful that it has consistently ordered MDU to review ways to reduce its cost of providing service, and the concerns of Saco residents must, accordingly, be balanced with the costs to all ratepayers.

117. The Commission concludes that there is no compelling reason for the Commission to order the Saco office to remain open given the small number of customers, the availability of a drop box payment plan in Saco, and the use of computerized records in Malta. MDU will incur substantial savings by eliminating the office person and building costs that outweigh the personalized service.

118. However, the Commission accepts the concerns of the local customers about the need to have a local serviceman to respond to night and weekend calls. Given country road conditions, the signed testimonials of past service problems where quick response was a necessity rather than a convenience, the lack of adequate records to document the hours of service performed, and the overall community concern about this matter, the Commission finds that MDU should continue to assign a serviceman to this community. As in the past, this individual can be used to perform work in both Saco and Malta as the need warrants, but, by continued residency in Saco, the weekend and night calls will generally have a quicker response time than under MDU's proposal.

PART F
COST OF SERVICE

119. Background The existing class cost of service and rate design resulted, most recently, from the Commission's Interim Order No. 5160 in the instant docket (November 1, 1985). In this interim order, and based on the parties' testimony, the Commission deviated from the common practice of applying a uniform percent increase to recover the interim revenue increase, in this docket of $4,002,799. In the interim order, the Commission required, based on a combination of MDU's and the Montana Consumer Counsel's (MCC) testimony (Exhibit No. MCC-S), a 75 percent allocation of the interim revenue increase to the residential (Rate 60) class; the balance of the revenue increase was applied to the commercial (Rate 70) class, as the MCC's proposal was to freeze the industrial class' (Rate 85) revenue requirement. In contrast, MDU's interim proposal would have the Commission allocate about 92 percent of the interim increase to the residential class (see MDU EXH No. J, Exh JKC-2). Finally, the Commission's interim order provided for any necessary rebates.

120. Prior to the above interim order, the previous docket in which class cost of service was at issue was Docket No. 83.8.58. Findings of fact in Order No. 5020b of this docket provided the Commission's decisions on cost of service and rate design issues. The following findings review proposals made by MDU and the MCC on the issue of class cost of service. Rate design and other issues are discussed later. The Commission's decisions follow a review of each issue.

121. MDU's Proposal Mr. Don Ball performed and provided results from an embedded class cost of service study (see Statement M). Mr. John Castleberry's testimony provided MDU's proposed allocation of cost of service among the various classes. Mr. Castleberry's proposal features certain objectives and constraints in allocating costs. A primary objective was to group the class rates of return more closely about the overall system rate of return; the primary constraint was to not increase any class' revenue requirement by more than twice the overall requested increase in sales revenues of about 9.1 percent.

122. For certain classes, Mr. Castleberry also proposed secondary objectives and/or constraints. For Rate 85, he proposed that the rate of return be “ . . . tied to the highest rate of return obtained elsewhere after the allocation of the entire revenue increase." (MDU's August 30, 1985, Data Response No. 7 to the PSC). Mr. Castleberry indicated that the:

...remaining increase not collected by the residential or industrial class was allocated to the commercial classes based on their proportionate share of the revenue increase as determined under the methodology shown as the 'Preliminary Allocation Procedure: Average of two considerations'. That is, the firm commercial class received 98% of the remaining increase...and the interruptible commercial class received 2% of the remaining increase. (ibid)

123. MDU's basis for allocating the lion's share of any revenue increase to the residential class stems, in part, from the assumptions and results of the Company's embedded cost of service study. MDU summarized the disparity in cost allocation by means of relative class rates of return. Table 1 below provides MDU's pro forma and proposed class rates of return.

Table 1
MDU's Calculated Class
Rates of Return
(%)

		Commercial		
	Residential	Firm	Interruptible	Industrial
Pro Forma	-17.4	11.9	47.5	174.7
Proposed	8.7	16.5	49.8	50.1

Source: Statement M, Part A, p. 2 and, MDU Data Response No. 34, Attachment A.

124. Certain embedded cost of service study assumptions that underlie the rate of return calculations are an issue between MDU and the MCC. First, MDU proposes to use a "minimum distribution system concept in its embedded study with the result that 40 percent of the investment in mains is classified as customer-related. Of the remaining main-related investment, MDU would propose to classify 50 percent as demand-related and 50 percent as commodity-related (see Exhibit No. 5, pp. 7-11). MDU's logic is that distribution main investments are split between demand and customer related components based:

...on the idea that a certain minimum amount of investment is required merely to connect a customer to the system, whether any gas is purchased or not.

***

This minimum investment can thus be classified as customer related. The remaining distribution investment is classified as being demand related.

***

Given this classification of costs, Montana-Dakota allocates the customer related portion of mains on the most logical basis, number of customers. The remaining costs, the demand related component, are allocated according to the widely accepted 50/50 weighting of commodity and demand. (MDU Data Response No. 31 to the MCC)

125. Given MDU's final proposal, around 92 percent of the Company's proposed final increased revenue requirement would be allocated to the residential class. The balance would be allocated to the Commercial class. The industrial class, with MDU's proposal, would experience roughly an 8.39 percent reduction in revenue requirement, or equivalently, a shifting away from Rate 85 customers of about 50 percent of fixed costs.

126. Another cost of service issue surfaced in this docket in regard to the treatment of the cost of MDU's employee discount. From MDU tariff 102-M-1, it is evident MDU's employees receive a 33 percent discount on their bill. On one hand, MDU holds the cost of the discount is recovered from all classes (MDU's November 7, 1985, Data Response No. PSC-MDU-12). Elsewhere, MDU suggests the associated revenue requirement is recovered from the residential class alone (MDU's August 30, 1985, Data Response No. 12 to the Commission). In fact, Mr. Ball stated that the cost of the employee discount "...has absolutely no effect on the commercial revenues or the industrial revenues." (TR, p. 403) A March 18, 1986, letter from Mr. C. Wayne Fox to the Commission staff put the number of MDU employees at 440 with an associated level of annual consumption equal to 58,742.20 MCF (1984). With the rates currently in effect, the total cost that may be allocated to just residential customers in MDU's embedded cost of service study is on the order of $96,330 per year.

127. While the issue of transportation rates will be discussed later in this order, the Commission would simply note here that there is a feedback from cost allocation to classes and the

calculation of certain transportation rates. Specifically, Rates 81 and 82 are affected by the allocation of costs to classes based on MDU's proposed recipe for computing Rates 81 and 82 (Exh. No. J, p. 30).

128. MCC's Proposal Mr. Jim Drzemiecki testified on behalf of the Montana Consumer Counsel on certain class cost of service and rate design issues. Mr. Drzemiecki's embedded cost of service study differs from MDU's, most significantly, in how distribution main investments are classified and allocated to classes. However, his study is in part based on MDU's pro forma cost of service study (Statement M), combined with certain pro forma adjustments made by Mr. A1 Clark. In contrast to MDU, Mr. Drzemiecki holds gas utilities design their local distribution systems based on expected load patterns: that is, the distribution mains must satisfy the non-coincident maximum customer demands as well as the average energy requirements (Exh. No. 5, p. 9). With his approach, 50 percent of the investment in mains is classified as demand-related and the other 50 percent as commodity or energy related. Other plant investment and expense items are allocated similarly to distribution mains in Mr. Drzemiecki's study (ibid, p. 11).

129. The apparent result of Mr. Drzemiecki's treatment of distribution mains and related costs is that the allocation of revenue requirements to the various classes differs from MDU's allocation. First, the residential class is allocated only 75 percent of the total increase in revenue requirements. Mr. Drzemiecki would also propose to allocate the remaining 25 percent in revenue requirements to the commercial class, with no change in the industrial classes revenue requirement. There appears no analytic basis to Mr. Drzemiecki's allocation of costs between firm and interruptible customers within the commercial class: that is, if the final revenue requirement differed from that assumed in his testimony, it is unclear how the revenues allocated to the commercial class would be split between the two subclasses (MCC Data Response No. PSC-MCC-25).

130. Like MDU, Mr. Drzemiecki justifies allocating the lion's share of any increase to the residential class based on relative class rates of return (Exh. No. 5, p. 14). His pro forma class rates of return moderate MDU's but still show disparities as evident from Table 2 below.

Table 2
MCC's Calculated Class
Rates of Return
(%)

		Commercial		
	Residential	Firm	Interruptible	Industrial
Pro forma	-15.9	11.3	15.2	127.8

Source: MCC EXH. No.5, Exh. JD-2, p.1.

131. While relative class rates of return appears to be Mr. Drzemiecki's basis for allocating most of the revenue increase to the residential class, Mr. Drzemiecki also argued that such an allocation basis is only appropriate when rates of return are computed on a marginal cost of service basis as opposed to the embedded basis reflected in the above table (MCC Data Response No. PSC-MCC-14).

132. With regard to the allocation of costs associated with MDU's employee discount, Mr. Drzemiecki simply stated that he handled the allocation identically to how MDU allocates the same costs. However, Mr. Drzemiecki did state that to the extent the employee discount is a fringe benefit for employees, it is incurred to serve customers just like any other worker fringe benefit (MCC Data Response No. PSC-MCC-21, and TR, 524).

133. Commission Decisions In this docket, the Commission has the two primary tasks of allocating the approved final revenue requirement of $4,023,736 to the various customer classes, and the design of efficient prices. The choices presented to the Commission for allocating revenue requirements include MDU's and MCC's embedded cost studies and MDU's marginal cost study.

MDU holds, however, that the marginal cost study results, while useful to buttress the embedded cost study results, cannot be translated into prices (Exh. No. J, p. 9).

134. The Commission would reemphasize that because utility regulation seeks to emulate the results of competition for an industry characterized by monopoly, marginal cost pricing recommends itself in the design of natural gas prices (Order No. 5020b, Finding No. 136). And it is marginal costs, computed from a sound marginal cost study, that should, in large part, guide the setting of efficient prices. That is, cost allocation and price setting should not be divorced from one another. In the following, the Commission will set forth its reasons for accepting the results of the MCC's embedded cost of service study for purposes of cost allocation to the various classes.

135. With regard to the parties' two embedded cost of service studies, the Commission finds the logic of the MCC's position, with regard to the central issue of allocating the investment in distribution mains, to prevail. That logic is essentially to theoretically classify investment in distribution mains on a capacity and energy basis:

...theoretically...the peak-day requirement should be a noncoincident peak. It's perfectly analogous to the situation that one faces when one is trying to determine the proper allocation technique for electric distribution plant, for example. (TR, 528)

136. If one, for example, turns to Mr. Castleberry's proposed classification of electric transmission and distribution plant investment from Docket No. 83.9.68, it is evident that MDU classified distribution and transmission costs on a demand basis, and not on a combination of customer, demand and energy basis as proposed in the instant docket (see Order No. 5036a, Finding of

Fact Nos. 190 and 193). (It is also interesting to note, if one turns to Mr. John Castleberry's testimony in Williston Basin Interstate Pipeline Company Docket No. RP86-10-000, before the Federal Energy Regulatory Commission, that it is evident functionalized transmission costs were classified, by Mr. Castleberry, on a combination of 1) commodity, 2) peak demand and 3) annual demand basis; transmission costs were not classified on a customer basis.)

137. On the issue of allocating the costs of MDU's 33 percent employee discount, the Commission also finds the MCC's logic to prevail. That is, the associated costs are a cost of production that should not be solely allocated to the residential class (TR, 524). If these costs were allocated on a more logical basis, they could be allocated based on how other fringe benefits are allocated in MDU's embedded cost study (TR, 524). Then the roughly $96,330 of employee discount costs that appear to be allocated to just the residential class should in fact be allocated to all classes. Moreover, this figure of $96,330 per year is, in the Commission's understanding, only based on employees located in the State of Montana. A more refined adjustment would also include common overhead costs of management etc., associated with MDU's Bismarck, North Dakota central office operation, to the extent such costs are also allocated to just the residential class.

138. While the precise impact of adopting the MCC's embedded study, including the above discussed costs associated with the employee discount and the MCC's classification of distribution investment in mains, is unknown, the Commission finds that, as a move in the right direction and given current market conditions, it seems reasonable to allocate costs to classes based on the 75 percent residential, 25 percent commercial with a freezing of the industrial class revenue requirement as proposed by the MCC.

139. The issue of how to split the 25 percent allocation of costs to the commercial class between firm and interruptible customers remains. Neither MDU's or MCC's logic on this issue appears very sound. On one hand, the MCC, in response to a data request on how to set prices for these two subclasses, which is in effect an issue of cost allocation, stated that the prices should be established in the final order based on Mr. Drzemiecki's Exhibit J.D.-4; this response, however, begs the question of how to vary

the allocation based on varying final revenue requirements (see MCC Data Response No. PSC-MCC-25). MDU's response to a similar question was that the commercial class is simply treated on a residual basis:

The remaining revenue increase not collected by the residential or industrial class was allocated to the commercial class based on their proportionate share of the revenue increase...That is, the firm commercial class received 98% of the remaining increase and the interruptible class received 2% of the remaining increase. (See MDU Data Response No. 7 to the PSC)

140. Based on the above proposals, the Commission finds that the revenue split for the two commercial subclasses should be tied to the revenue split resulting from the interim order (Order No. 5160, Finding No. 35). That is, the revenue split that resulted from the interim must be used to adjust for the difference between the level of revenues allocated on an interim basis versus the revenues allocated on a final basis to the commercial class. (Discussed in more detail below.)

141. Before moving on to the issue of rate design, the Commission finds necessary certain comments on MDU's opening brief and its marginal cost study. First, the sentence preceding the table on page fifteen of MDU's brief states in part: "...the recommendations for allocating the new revenue requirement are markedly dissimilar:" (emphasis added) MDU then goes on to title the table "CLASS RATE INCREASES TO IMPLEMENT NEW REVENUE REQUIREMENT".

142. It should be noted that in this table MDU has made an apples and oranges comparison. The column titled "MDU", contains the resulting percent increases in the respective class' revenue requirements; in the column titled "MCC" are the percents of the total revenue increase allocated to each class. To correct the table, one could either 1) re-title the table and replace the referenced percent increases with percent allocations e.g., the 18.2 percent increase with about a 92 percent allocation, or 2) replace the allocation percents under column "MCC" with percent increase values. With the former, one would have an apples and apples comparison with MDU proposing to allocate about 92 percent of the total increase in revenues to the residential class compared to MCC's 75 percent allocation (See MDU Data Response No. 13, p. 11 of 19). That is, with regard to the data under column "MCC" what MDU calls a "class rate increase" is not a class rate increase but rather the percent of the total revenue increase that the MCC proposes to allocate to the respective classes.

143. Second, MDU's marginal cost of service study appears flawed in at least one respect. The flaw is due to assumptions made by MDU in computing the annualized marginal cost of demand for distribution investments of $202.74 per peak day MCF (see Exh. J, Exh. No. JKC-4). This annualized value was computed from a total cost figure of $949.69 (ibid, Exh. No. JKC-9). A description of how this latter figure was computed appears on Exhibit No. JKC-6. Column two (2) of JKC-6, in turn, provides MDU's estimate of historic and forecast increases in distribution customers. The forecast values of increases in distribution customers affects the regression analysis used to develop the above $949.69 value. These forecast values appear too optimistic given the recent trend in growth of distribution customers.

144. Table 3 below provides a comparison of MDU's estimate of

recent increases in distribution customers with the Commission's estimate based on MDU data. From 1982 through 1984 there appears close agreement between the two estimates of changes in distribution customers. The Commission's estimates also include an annual estimate for 1985 based on the first eight months of recorded data. The data indicates that 1) there is a clear downward trend in the change in number of distribution customers and 2) MDU's forecast of an increase of 1300 customers per year for the period 1985 through 1989 appears overly optimistic. Nearly a magnitude of difference exists between MDU ' s forecast of 1300 new distribution customers for 1985 and what actually occurred in the first eight months of 1985. In turn, one can question the validity of MDU's forecast of peak day MCF and the forecast of investments in distribution plant. The MCC also raised certain concerns with MDU's marginal cost study (Exh. No. 5, pp. 17 - 24).

Table 3

Estimated Annual Increases In

Distribution Customers

Year	MDU	Commission
1985	1300 (3)	135 (4)
1984	661 (1)	637 (5)
1983	1213 (l)	1160(6)
1982	2443 (1)	2343(7)

Source:

(1) From MDU's Exh. No. J, Exh. JKC-6, p. 1 of 1. No mention is made as to whether the values include residential and commercial customers.

(2) Initial data are derived from Mr. Ball's April 2, 1986, Data Response No. 14 to Mr. Drzemiecki. The annual average calculation in this column is based on the number of months where readable data were available (other deletions are noted below). For a given month, the change in the number of commercial and residential customers is computed between two years.

(3) The 1300 figure is MDU's forecast.
(4) The 135 figure is an average based on the first eight (8) months of data for 1985.
(5) The 637 figure would be a -254, however the months of March and June were thrown out due to being apparent outliers.
(6) The 1160 figure would be 2194, however the months of March and June were thrown out due to being apparent outliers; in addition July was excluded for readability reasons.
(7) This figure was based on only nine months of data. The months of July, August and October were unreadable.

145. The second concern the Commission has with MDU's marginal cost study derives from the Williston Basin Interstate Pipeline Co. (WBIP's), proposal before the Federal Energy Regulatory Commission on cost allocation and rate design for its G-1 rate. The G-1 rate applies to MDU's provision of service to firm load customers in the state of Montana. In turn, MDU's Rate 60 and certain Rate 70 customers are affected by WBIP's proposals with regard to the allocation of costs to and rate design on G-1.

146. In the RP86-10 docket before the FERC, Mr. John Castleberry, on behalf of WBIP, proposed to allocate certain demand costs to the G-l rate schedule. The Commission understands that these

costs are allocated based on a customer's (e.g., firm customers' load in the State of Montana) highest noncoincident peak in the recent past. In turn, MDU stated it is load in the winter period which is roughly "November through March...that...corresponds most nearly with the Company's greatest natural gas requirements experienced during a year, its peak period so to speak..." (see Exh. No. J, p. 10). In fact 70 percent of the average annual residential gas consumption, in 1984, occurred in the winter period which is only 35 percent of the calendar year (MDU Data Response No. PSC-MDU-14).

147. What troubles this Commission is that at the WBIP level Mr. Castleberry proposed to allocate certain demand-related costs to firm customers in the State of Montana based on the same customers' peak demand behavior; that is, firm customers' peak demand, which undoubtedly occurs in the winter, affects the costs they incur. Then, at the MDU level, Mr. Castleberry proposes no seasonality in rates for firm customers in spite of the fact that their combined winter demand behavior affects the costs allocated to them. With regard to this issue, either costs are allocated improperly or rate design is not efficient.

The Commission will revisit this issue later in this order.

Part G

RATE DESIGN

148. Introduction This part of the order first deals with rate design proposals made by MDU and MCC for Rates 60, 70 and 85. The second part discusses transportation rate design issues and the third certain other tariff changes proposed by MDU.

149. Background: Rates 60, 70 and 85 Table 4 below provides the pre-interim and interim rate designs and prices for these three customer classes. The interim prices reflect the Commission's decision to adopt l) the MCC's revenue allocation proposal; 2) MDU's and the MCC's proposal on replacing the minimum bills on Rates 60 and 70 with Base Rates, and 3) the elimination of the inverted block rate structure for Rate 60.

Table 4
Pre-Interim and Interim Prices
(Base Prices in $)

	Pre-Interim		Interim	
Class	Winter	Summer	Winter	Summer
I. Residential:				
(Rate 60)				
i-Minimum Bill(M)	5.00 M	5.00 M		
or Base Rate (B)			3.00 B	3.00 B
ii-Commodity (MCF)				
less than 15 MCF	4.631	5.293	4.344	4.344
more than 15 MCF	5.293	5.293	4.344	4.344
II. Commercial:				
(Rate 70) .				
i-Minimum Bill(M)	10.00 M	10.00 M		
or Base Rate (B)			6.00 B	6.00 B

ii-Commodity (MCF)				
1. Firm	5.271	5.271	4.560	4.560
2. Interruptible	5.021	5.021	4.303	4.303
III. Industrial:				
(Rate 85)				
i-Base Rate (B)	NA	NA	NA	NA
ii-Commodity (MCF)	5.479	5.479	4.570	4.570

Source: The pre-interim prices were effective with service on and after June 1, 1985 (Docket No. 85.5.16, Order No. 5141). The interim prices were effective for service on and after November 1, 1985 (Docket No. 85.7.30, Order No. 5160); Rate 85 prices, however, were effective October 28, 1985. The prices currently in effect are different from the above interim and reflect changes in the gas tracking adjustment from Docket No. 85.11.44, Order No. 5166.

150. Residential Rate 60 The Final increased revenue requirement (in lieu of the interim increase) that must be generated by Rate 60 prices equals $3,017,802. Table 5 below provides the current and the Commission's estimated base (before the tracker adjustment) commodity prices and Base Rates.

151. The Commission finds merit in the proposals by MDU and the MCC to tariff Base Rates in lieu of minimum bills and to eliminate the inverted block rate structure. Both of these changes were made on an interim basis. As stated by both MDU and the MCC, there also, at this time, is merit in a Base Rate as high as $12.00/Month based on MDU's embedded cost study (Exh. No. J, p. 26). In fact, according to MDU, the marginal cost for the residential class is at least $6.25/month (see MDU Data Response No. 1 to the PSC and Tr. 501). As stated by Mr. Drzemiecki "...very few customers are likely to be affected “. . . due to the low levels of the proposed Base Rates (Exh. No. 5, p. 27). Moreover, compared to MDU's Base Rates in other states, the $3.00 level for Montana residential customers appears relatively low (TR, 480).

152. The reasons Mr. Castleberry and Mr. Drzemiecki gave for replacing minimum bills with service charges, for each customer class are, in large part, due to their concerns for minimizing welfare loss. Both parties cite the reduction in social welfare that arises from setting the commodity (MCF) price above its marginal cost and the customer charge below marginal cost as the basis for tariffing Base Rates in lieu of minimum bills. (See MDU's Data Response No. PSC-MDU-5 and 8, and the MCC's Data Response No. PSC-MCC-10). In fact, Mr. Drzemiecki cites welfare loss concerns as “ . . . the most important rationale for tariffing service charges in lieu of minimum bills. n (MCC Data Response No. PSC-MCC-11 and TR, 525)

Table 5
Current and Estimated
Residential Base Prices ($)

	Current (1)	Commission Estimated
Commodity (MCF):	4.344	4.346
Base Rate:	3.00	3.00

Source:
(1) The current prices reflect base prices -- exclude the tracking adjustment.

153. The prices in Table 5 are estimates. MDU must, as with other rate schedules, refine these estimates in its compliance filing and accompanying work papers. The rate design is final.

154. Based on WBIP's minimum daily quantity (MDU), demand related cost allocation to MDU, the Commission finds that there appears to be merit in a seasonal price differential, with the winter price $0.50 greater than the summer price. However, the residential rate design out of this docket shall reflect flat commodity prices.

155. The Commission would also note that MDU acknowledged the existence of a seasonal differential in costs:
Natural gas costs do not vary by hour rather they vary most significantly over basically two time periods, namely the winter period and the rest of the year (MDU Data Response No. 47 iii to the Commission).

156. Commercial Rate 70 There are two sub-classes with this rate schedule including Firm and Interruptible options. The Final increased revenue requirement (in lieu of the interim) allocated to Rate 70 out of this docket is estimated to equal $1,005,934. Table 6 below provides the current and the Commission's estimated base (before the tracker adjustment) commodity prices, and Base Rates.

Table 6
Current and Estimated
Commercial Base Prices ($)

	Current (1)	Commission Estimated
Commodity:		
i-Firm	4.560	4.561
ii-Interruptible	4.303	4.3035
Base Rate:	6.00	6.00

Source:
(1) The current prices reflect base prices--exclude the tracking adjustment.

157. The Commission's estimated prices in Table 6 above reflect the following. First, the Commission finds that a Base Rate of

$6.00/month should be tariffed. Second, the increased Final revenue requirement, of about $1,005,934 (in lieu of the interim allocation to this class) must be allocated to the Firm and Interruptible subclasses on the same percent basis as the interim revenue increase; i.e., about 94.7 percent to the Firm class and 5.3 percent to the Interruptible class. The impact that setting these prices has on Transportation Rate 81 will be discussed later.

158. Industrial Rate 85 As the Commission's decision is to not change this class' revenue requirement, the only remaining issue relates to rate design. In this regard, the Commission finds merit in MDU's proposal to tariff a Base Rate of $265.00/month in lieu of the MCC's proposed $220. Clearly, given current oil prices, it makes sense to set the commodity price as close to marginal cost as possible to minimize uneconomic fuel switching. (For example, the May 21, 1985, Wall Street Journal (p.47) shows No.2 fuel oil selling at about $3.40/million BTU (New York) assuming 140,000 BTU/Gallon. A year ago, the same fuel cost about 5.00/million BTU.) Rate 90 will provide a floor price to those industrial customers that could economically fuel switch to No. 6 fuel oil. The current and Commission estimated Rate 85 prices are set forth in Table 7 below.

Table 7
Current And Estimated
Industrial Base Prices ($)

	Current	Commission Estimated
Commodity	4.57	4.557
Base Rate	NA	265.00

Source: Computed using 1,692,070 MCF and 7 customers per Exh. No. 5, Exhibit. (J.D.-4), p. 8 of 10.

159. Background: Transportation Rates 97, 81 and 82 The purpose of this background section is to bring together, on a chronological basis, much of the history on the development of MDU's transportation rates. MDU's first transportation filing was Rate 97, which was filed on September 26, 1983. As originally filed, the intent of Rate 97 was "...to effectuate and perfect direct second party sales of natural gas at retail to a former MDU contract industrial customer..." (emphasis added) (Mr. Wayne Fox's 9/26/83 letter to the Commission). The principal constraint noted in the filing was that the customer must have annual natural gas requirements of at least 1 BCF. The rate computed

based on a "distribution cost of service” study was $0.05. The Commission initially approved the rate on October 17, 1983. Later, in Docket No. 83.8.58 (Order No. 5020b), the Commission found Rate 97 "appropriate", but noted it "should be subject to continuing scrutiny. n (Finding No. 190)

160. On April 5, 1985, MDU filed two new transportation rates, Rates 81 and 82, which were noticed for an opportunity of public hearing and assigned Docket No. 85.4.15. These two rates were filed by MDU to accommodate expected transportation of gas that resulted from the realignment of and creation of WBIP Co. Rate 81 was limited to interruptible commercial customers with transported gas volumes exceeding 2,500 MCF/hour. Rate 82 was for industrial customers. Whereas Rate 97 was computed from a cost study, Rates 81 and 82 were designed so that none of MDU's regular sales customers would be made worse off from the transportation of gas, either to a new or existing customer, than if MDU had actually sold the gas to the transportation customers (Mr. Fox's April 5, 1985 letter to the Commission). That is, Rates 81 and 82 were computed based on the contribution to fixed costs, over and above marginal costs, of the otherwise applicable retail rates (Rates 70 and 85). On July 22, 1985, Rates 81 and 82 were approved by the Commission and went into effect.

161. On October 4, 1985, the Commission received MDU's application to revise language included on Rates 81, 82 and 97. MDU's changes were to "...eliminate the possibility of a potential transporter interpreting the rates' applicability in a manner which is not consistent with the Company's original intent of service." (Mr. Fox's October 4, 1985 letter to the Commission) Rate 97 was modified to eliminate the 1 BCF minimum "annual sales volumes" so that Holly sugar could continue to MDU Docket No. 85.7.30, Order No. 5160a 65

qualify for service and to modify a provision referencing WBIP's S-2 rate schedule, again, so that service to Holly Sugar could continue. No price changes were proposed in this filing and Commission approval was granted at a routine agenda.

162. In the present docket, MDU proposed price changes for Rates 81 and 82. While not proposing price changes for Rate 97, Mr. Castleberry suggested that, based on an embedded cost of service study analysis associated with serving contract industrial customers, he would not expect the resulting price to be significantly different from the current $0.05/MCF price which was based on 1982 costs and data TR, 428). MDU's Rate 81 and 82 price proposals vary with the Company's interim and final proposals. In turn, the price changes vary due, in part, to changes in volumes (MCFs), and class revenue requirements. That is, as noted earlier, there is a feedback from the associated retail rate for each of Rates 81 and 82. For example, in this docket MDU proposed to shift 8.39 percent of the industrial revenue requirement away from the industrial class, or equivalently about 50 percent of the fixed costs recovered from Rate 85 sales volumes. Then, because Rate 82 is computed on an "equivalent to a margin" basis (TR, 445), the level of the rate must fall, other things being equal.

163. Mr. Drzemiecki proposed price changes for transportation Rates 81 and 82. Whereas his proposal for Rate 81 is not substantially different from MDU's, his proposed price for Rate 82 is 134 percent greater. Two factors that affect the difference include the shifting of fixed costs off of Rate 85 to other classes and differences in sales volumes. As opposed to MDU, Mr. Drzemiecki proposed to hold constant the industrial class' revenue requirement and increase the final sales volumes. Table 8 provides the current and parties' proposed transportation prices.

Table 8
Current and Proposed
Transportation Prices ($)

Rate	Current Prices	MDU's Interim	Proposed Final	MCC's Final
81	.703	.768	.771	.80
82	.816	.797	.413	.88

Sources: MDU's interim and final proposals, and assumptions, are from Data Response No. 13, Attachment A, pp. 10 and 19, to the MCC. The MCC's proposals are from Exh. No. 5, Exhibit J.D.-4, pp. 9 and 10. All prices are at 14.73 PSIA.

164. Commission Decision Based on the adoption of Mr. Drzemiecki's cost allocation proposal, his proposed transportation prices should also be tariffed. The Commission has concern with the method used to compute Rate 81 and 82 prices, however, and also finds that certain adjustments will have to be made in computing the rates. First, as evident from MDU's testimony, the Company has experienced significant losses in commercial and industrial loads of about a quarter BCF and two BCF, respectively, for these classes (see MDU Data Response No. 59 to the MCC and Exh. No. J., p. 17). Moreover, in 1986 we have seen substantial declines in the prices of certain (gas and oil) fuel substitutes. MDU's ability to market its gas, given current WBIP gas prices to MDU and the Company's method for computing transportation rates 81 and 82, is clearly challenged. And given the fixity of the WBIP gas prices to MDU, efficient transportation prices appear to be one way MDU could retain these relatively elastic loads and, in turn, some contribution to fixed costs.

165. MDU's proposals for computing Rates 81 and 82, however, do not appear very robust. As one can see from this docket, a combination of MDU's method for computing Rates 81 and 82, combined with the MCC's proposed cost allocation to classes, results in an increased Rate 82 price at a time when the price should perhaps decrease. Mr. Castleberry even indicated that "the prospect of distribution company bypass is very real" with an $0.82/MCF Rate 82 price, let alone an $0.88/MCF price (TR, 448).

166. Also, MDU's method for computing Rate 97 seems questionable. In fact, the Commission finds a certain criticism in Mr. Castleberry's WBIP RP86-io testimony, as it regards embedded cost studies, to be germane to MDU's calculation of transportation prices. WBIP attributes large shifts, in the last few years, of large industrial customers away from natural gas toward residual fuel oil and natural gas to the following:

This shift has stemmed in large part from the industry's strict reliance on cost in the derivation of rates and its inability to react quickly to a change in market realities. Simply stated, if firm service customers are to continue to enjoy the benefits derived from the provision of these services, a new weighting scheme must be developed relative to the criteria affecting rate design... Indeed, it makes no sense to forego contributions to fixed costs just because the market will not bear a so-called fully allocated cost rate. Similarly, it also makes no sense to set rate levels that eliminate the demand for a service solely for the sake of translating costs directly into rates. Other factors, such as marketability and competition, must also be considered... Thus, non-cost criteria must be considered in conjunction with cost of service (see Mr. Castleberry's direct testimony at pages 10 and 11 in WBPC's RP86-10-000 filing before the Federal Energy Regulatory Commission).

167. Mr. Castleberry's pricing concerns for WBIP would also seem applicable to MDU. Mr. Castleberry's above testimony would seem to call into question the low and unchanging level of Rate 97, given the "dynamic and volatile gas market of today," and the resulting high levels of Rates 81 and 82. The current prices will remain in effect, however, until such time as a more desirable method to compute transportation prices is proposed.

168. MDU also proposed a flurry of changes to certain other tariffs which are discussed in the following. First, MDU proposed revisions to the current average $10.00 reconnect fee on Rate 117. The current cost to disconnect and reconnect customers is $21.90. MDU proposes to charge two different prices for reconnects based on the reason for the customer's reconnect. For reconnects related to "nonpayment of bills" MDU's proposed price is $12.00. For reconnects associated with "seasonal and temporary" customers, MDU proposes a $20.00 price.

169. The MCC did not testify on the merits of the above and other language changes discussed in Mr. Castleberry's testimony (Exh. No. J., pp. 28-30). The Commission finds no reason to deny MDU's proposed changes.

170. MDU must file with its compliance tariffs workpapers showing the calculation of all retail prices including revenues from reconnects. All billing determinant adjustments that differ from the company's proposals, and that have been adopted by the Commission, must be included in MDU's price calculations and revenue verification.

171. The Commission requests that MDU compute and provide the marginal commodity costs that appear on Exh. No. J (JKC-4), p. 1 of 1, to reflect WBIP's RP86-10-000 proposed cost study before the Federal Energy Regulatory Commission, i.e., the

average annual commodity cost under WBIP's G-1 and I-1 tariffs.

172. The Commission further requests that MDU provide the dates associated with each "lost gas load" (Montana Commercial and Industrial) appearing in Data Response No. 59. Attachment A, pp. 3-5. In the case of commercial, MDU must specify whether the customer was firm or interruptible.

CONCLUSIONS OF LAW

1. The Applicant, Montana-Dakota Utilities Company, furnishes natural gas service to consumers in Montana, and is a "public utility" under the regulatory jurisdiction of the Montana Public Service Commission. Section 69-3-101, MCA.

2. The Commission properly exercises jurisdiction over the Applicant's rates and operations. Section 69-3-102, MCA, and Title 69, Chapter 3, Part 3, MCA.

3. The Commission has provided adequate public notice of all proceedings and opportunity to be heard to all interested parties in this Docket. Title 2, Chapter 4, MCA.

4. The rate level and rate structure approved herein are just, reasonable, and not unjustly discriminatory. Section 69-3330, MCA.

ORDER

1. The Montana-Dakota Utilities Company shall file rate schedules which reflect increased annual revenues of $4,023,736 in lieu of, rather than in addition to, interim rates; The total annual gas revenues of Montana-Dakota Utilities Company will be approximately $62,558,835.

2. The Commission reserves final ruling with respect to rate base exclusion of unamortized gain on reacquired debt in the amount of $205,371, pending final disposition of Supreme Court Docket No. 85-488. Return collected on this amount is subject to refund back to October 28, 1985.

3. All motions and objections not ruled upon are denied.

4. Rate schedules filed shall comport with all Commission determinations set forth in this Order.

5. This Order is effective for services rendered on and after June 2, 1986.

DONE AND DATED at Helena, Montana this 2nd day of June, 1986, by a 4-1 vote.

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION

____

CLYDE JARVIS, Chairman

____

HOWARD L. ELLIS, Commissioner

____

TOM MONAHAN, Commissioner
DISSENTING

____

DANNY OBERG, Commissioner

JOHN B. DRISCOLL, Commissioner

ATTEST:

Trenna Scoffield
Secretary

(SEAL)

NOTE: Any interested party may request the Commission to reconsider this decision. A motion to reconsider must be filed within ten (10) days. See 38.2.4806, ARM.

OPINION
DOCKET 85.7.30

TOM MONAHAN
COMMISSIONER

In the present docket, 85.7.30, Montana Dakota Utilities has applied for a $5,219,108 rate increase. C. Wayne Fox, Montana Dakota Utilities Company vice president, in his letter dated July 19, 1985, which is a part of their pre-filed testimony, says the principal reasons are "...higher cost levels being incurred in such areas as operation and maintenance expenses, depreciation, taxes and cost of capital associated with its gas operation in the state of Montana." He also says, "Additionally, Montana-Dakota has experienced a significant loss of load in Montana since the last general rate case. Such load loss has occurred primarily with the loss of customers in the industrial sector."

In addition to the $5,219,108 rate increase asked for by MDU, Williston Basin Interstate Pipeline, (WBIP) a fellow subsidiary of MDU Resource Group, Inc, and Montana Dakota Utility Company's sole supplier of natural gas, has applied for a rate increase from the Federal Energy Regulatory Commission. If granted, WBIP will pass the increase along to MDU who will in turn request this Commission to pass it along to the Montana ratepayer. As of this writing, MDU has now requested the Montana Public Service Commission to grant increases of 59.5¢ per MCF for residential, and commercial and 22.2¢ for industrial customers because of the Williston Basin FERC application, subject to refund if the FERC ultimately denies their application.

In its submission, Montana Dakota has requested 55,219,108. The Montana Consumer Counsel, through its expert witness Albert E. Clark has recommended granting 54,034,614 in added revenues. Montana Dakota has requested a return on equity of 16%. Through its expert witness Caroline Smith, the Consumer Counsel has recommended a 12.5% return on equity. The company asked for a restructuring of rates to assign the greater part of the requested increase to the residential customer, less to the commercial customer and a substantial reduction to the industrial customer. Other than relatively insignificant changes, Consumer Counsel expert witness James Drzemiecki did not oppose these rate design adjustments. Essentially, that is the entire case submitted to the Commission, other than information developed in the hearing. It is clear that MDU costs have risen with falling sales. I am willing to concede this and I am almost impatient with the vast effort spent by all parties where there is so little disagreement, while the real issue has been ignored. In this opinion I am attempting to draw attention to the only matter of any real importance, that is, are MDU's gas costs unreasonable and if so, who is responsible. The case presents us with a rate increase being requested for natural gas during a period when natural gas prices have fallen substantially and are still falling. Simply, the ratepayer is being asked to pay more because sales have fallen due to management decisions made in years past.

The background of Docket 85.7.30 is the energy crisis of 1974/1984 which drove the price of oil from $3.00 a barrel to over $30.00 and the price of natural gas from forty cents or so per thousand cubic feet to five or six dollars. The national reaction to this manipulated crisis was basically hysterical and consisted primarily of relaxation of governmental controls of the energy industry in the mistaken belief that it would then respond to natural economic forces. In logical response, the price of energy escalated to the point where the economy of the entire world failed or stumbled badly, which did finally lead to the sought for de-escalation of the price of energy. None of the frantic scurryings of Congress or appointments of different figureheads by any of the administrations involved had any effect upon the energy crisis. It ended from economic exhaustion. We are left, however, with the debris from that effort, sort of an economic Maginot line, which makes dealing with the down side of the oil crisis as difficult as the up side.

The rationale behind my decision in this case includes reliance upon Montana Statute 69-3-109 which says, The commission may, in its discretion, investigate and ascertain the value of the property of every public utility actually used and useful for the convenience of the public. The commission is not bound to accept or use any particular value in determining rates; provided, that if any value is used, such value may not exceed the original cost of the property. In making such investigation the commission may avail itself of all information contained in the assessment rolls of various counties, the public records of the various branches of the state government, or any other information obtainable, and the commission may at any time of its own initiative make a reevaluation of such property.”

I have also relied upon Montana Statute 69-3-330 which says in its first paragraph, “If, upon such hearing and due investigation, the rates, tolls, charges, schedules, or joint rates are found to be unjust, unreasonable, or unjustly discriminatory or to be preferential or otherwise in violation of the provisions of this chapter, the commission may fix and order substituted therefor such rates, tolls, charges, or schedules as are just and reasonable.”

It is not possible to arrive at any reasonable conclusion in the present docket without some scrutiny of the recent history of Montana Dakota Utilities. In years past, MDU was a gas and electric utility which served customers in Montana, Wyoming, North and South Dakota. They developed or bought natural gas, sold the gas to their customers in the four states concerned, and delivered it via their own pipeline network. In 1980 MDU established Frontier Gas Storage Company and sold them approximately 336 million of its stored gas and agreed to store it for them since Frontier had no storage facilities of its own. They also agreed to buy back all of the gas which they had just sold to Frontier, as needed for their own requirements. In 1985 MDU established MDU Resources Group, Inc., made Montana-Dakota Utilities Company a division and established Williston Basin Interstate Pipeline Company as a subsidiary. Williston Basin took over all MDU storage, pipelines between cities, all MDU gas supplies and then signed a contract with MDU to supply all its gas needs. Williston Basin also assumed MDU's obligation to store and re-purchase Frontier Gas. At the present time, Williston Basin owns 120 or so BCF and is storing 59 BCF for Frontier.

The end result of this massive shifting of corporate responsibility and function is the apparent removal of all parts of MDU's activities from the jurisdiction of the Montana Public Service Commission, except the distribution lines within cities. Since approximately 80% of the cost to the customer is the price of the gas, (TR 81/82J it is clear the ability of the State of Montana to protect its citizens from predatory gas pricing has been emasculated, unless the State is allowed the ability to scrutinize gas buying practices and cost of transmission.
In establishing the price of gas which the Montana consumer must pay the supplier, in this case, Montana Dakota Utilities, Co., it is clear that the chain of purchases from producer to MDU is a single event. It is analogous to many commercial activities.

Sears Roebuck, for example, may buy a given item from one of its own manufacturing subsidiaries or from an independent contractor. The customer who ultimately buys the product in a Sears store properly holds the retail store responsible. If there is a dispute as to price or quality he does not attempt to go to the manufacturer, he deals with the local Sears outlet where he bought the item. In selling the product, Sears has accepted responsibility for the product and would be held to that responsibility. In this docket, it is perfectly proper to hold the retail outlet, ie., Montana Dakota Utilities Co., responsible for the actions of the manufacturer, Williston Basin Pipeline Company. This is especially true in considering the sibling relationship of MDU and WBIP. At the present time MDU is paying $2.75 per MCF to Williston Basin. This price is based upon WBIP contracts with producers which WBIP took over from MDU and is at least 75¢ an MCF above the spot gas price. (TR 148) These contracts, which the company testifies it is attempting to renegotiate, may not have been imprudent when entered into but became so as the price of gas fell. It was pointed out in United States District Court of Appeals, District of Columbia Circuit, No. 84-1099, Office of Consumer Counsel, State of Ohio v. Federal Energy Regulatory Commission, that Columbia Gas Transmission Corporation's high take-or-pay provisions in the pipeline's contracts with gas producers, while not imprudent when entered into, had become a section 5 violation, thus finding that the question of prudency need not be restricted to the initial decision, but may be weighed upon its ultimate effect.

In commenting upon the affect of fuel purchase practices upon fuel switching, Judge Edwards, in the just cited action, said, "Yet the volume of gas that Columbia and its customers can sell is directly affected by the cost of Columbia's purchases passed through to its customers and ultimately to consumers. This failure to link gas acquisition and marketability results in a high risk that a significant portion of Columbia's gas will become unsaleable and that fuel switching will reduce the number of customers who must shoulder the burden of the increased gas acquisition costs as well as fixed costs. Under these circumstances, the Commissions's findings that Columbia acted imprudently and in reckless disregard were completely justified."

Because a significant part of MDU's market was industrial and hence susceptible to fuel switching, the fact that MDU, through its contract with WBIP, was locked into overpriced contracts, meant the high prices would impact those customers without the capacity to switch fuels or buy gas on the open market as purchased gas costs increase and fixed costs are spread over a smaller sales volume. It becomes evident that as industrial customers such as Holly Sugar, Conoco Refining and Farmer's Union left the MDU system because they can buy fuel cheaper elsewhere, other customers will also leave the system as price increases are granted. MDU's Montana service district is awash with competitive fuels which are produced locally. There are ample local supplies of coal, oil and wood which are readily available to the residential consumer as well as industrial and commercial consumers. It was testified, in a satellite hearing in this docket, that the Hardin High School had already switched to coal. Clearly other commercial customers would leave for alternate fuels if prices were increased further which would lead to requests for still higher increases which would lead to further departures until ultimately there would be left only those customers who did not have access to coal, wood or heating oil.

This death spiral is inevitable if consideration is denied to the consequences of the management decisions which locked MDU to uneconomic contracts with producers through its affirmed contract with WBIP.

As Judge Edwards also pointed out in Office of Consumers' Counsel v. FERC, supra, "Substantial evidence amply supports the Commission's conclusions that Columbia's purchase procedures were imprudent and evidenced reckless disregard for its duty to provide service at the lowest reasonable rate. FERC found that the pipeline largely ignored the effect of competition from alternative fuels in determining how much gas to purchase at the prices demanded by the producers. First, Columbia did not consider the possibility that its customers might switch to No. 6 fuel oil, and second, it acquired gas without regard for the effect of the purchase price on its ability to sell the gas in a market with competition from alternative fuels."
Judge Edwards' comments are directly applicable to MDU and Williston Basin in this docket. Substantial evidence amply supports the conclusion that MDU's purchase procedures were imprudent and evidenced reckless disregard for its duty to provide service at the lowest reasonable rate, in that MDU signed a contract with a sister company for uneconomical fuel, priced well above the price for which other gas could have been purchased.
Further, MDU takes all its needs from $2.75 an MCF flowing gas, ie., gas which WBIP had just purchased from producers, rather than drawing from the 117 BCF of storage gas which would cost only 50¢ an MCF. The cheaper storage gas is used only to augment the higher priced flowing gas. (TR 144/151)

A further parallel between MDU/WBIP and Columbia is seen in the fact that Columbia used an affiliate producer in a manner very similar to that in which MDU and WBIP used each other. Again, from the same Office of Consumers' Counsel v. FERC quot ed above, we find n ....Columbia used its affiliate producer, Columbia Gas Development Corporation ("CGD") as an agent to negotiate its contracts with other Southwestern gas producers. CGD then entered into contracts with Columbia containing the same terms and conditions as did the contracts CGD had previously negotiated for the pipeline with unaffiliated producers. The ALJ found that this dual role of agent and supplier, pled with the method of contracting between the affiliates, produced an inherent conflict of interest. This conflict of interest could contribute to rates above the 'lowest reasonable rates,' to the detriment of Columbia's customers.. Clearly, a situation in which MDU is represented by WBIP personnel, and the reverse, is a conflict of interest to the detriment of MDU's customers every bit as much as was the conflict of inter est between Columbia and CGD. (TR 46/48 & 113/116) Even without scrutinizing the MDU/WBIP structure it is apparent that the interests of the two companies are so intertwined as to be identical. Donald R. Ball, in his testimony in this docket, identified himself as Manager of Revenue Requirements of Montana-Dakota Utilities Co. And that same Donald R. Ball signed the Williston Basin Pipeline Company rate increase application letter to the Federal Energy Regulatory Commission. In other words, the person responsible for MDU revenue requirements signed an application to have his company's prices in creased. And what chance does the ratepayer chicken have when his future is guarded by Montana Dakota Utilities vice president Wayne Fox, a member of the Task Force appointed by President Maichel to research the possibilities of finding alternative sources of gas, who will appear before the FERC in

Washing ton on behalf of WBIP. (TR 37-38)

In summary, it is clear that the attempt by MDU to move prices opposite to market trends is because of the failure of management decisions. The company itself, through the testimony of William C. Glynn, admitted the contracts it signed with producers, were signed solely because in their judgment the prices and terms were beneficial. (TR 150/151) To force ratepayers to pay for the mistakes of management would be to make a mockery of regulation.

Additionally, MDU is planning to sign further contracts with WBIP and thus perpetuate inflated Montana gas prices. (TR 35 & 44) Even though the company has claimed to be actively seeking alternative gas sources, it has not contacted neighboring Montana Power Company as a possible source of much cheaper Canadian gas. In fact, in response to PSC data request 45,

which asked if they had ever made inquiries in this regard to MPC, the company responded simply that "MDU is presently a full requirements customer of Williston Basin Interstate Pipeline Company". And, in fact, MDU could tie into the MPC system and cut its Billings gas costs substantially for the expenditure of just $110,000. (PSC data request 41) Considering the tangled and incestuous relationship existing between WBIP, MDU and Montana Dakota Resource Group, Inc., there can be little doubt that the monetary interest of the parent corporation is the motivating factor in the actions of the various companies.

MDU established its family of companies, WBIP, MDU Resources Group, Inc. MDU, etc., in order to remove the bulk of its resources from the scrutiny of the states in which they operate. (TR 136) The National Association of Regulatory Utility Commissions, (NARUC) in a paper entitled, "Reluctance of Distribution Companies to Purchase and Transport Gas from other than Affiliated Pipelines, says "A local distribution company that traditionally purchases its system supply from an affiliated pipeline will be under corporate pressure not to utilize a nonaffiliated pipeline for these services. And further, the local distribution company may refuse to take advantage of the opportunity to reduce its gas costs, if by doing so, it would financially harm its affiliated pipeline. And finally, the state regulatory agencies will have to encourage local distribution companies to go beyond their current pipeline suppliers, and explore new possibilities for obtaining low cost gas. This can be achieved by imputing a lower cost of gas supplied to the distribution company, than provided by its affiliate. n

The NARUC could well have been speaking not of some unnamed distribution company and an anonymous pipeline, but precisely of MDU and WBIP. As admitted by William Glynn, MDU is now paying 75¢ per MCF over the spot market price for the precise reasons enumerated above by the NARUC. Administrative Law Judge Howe, sitting for the FERC in National Fuel Gas Supply Corporation dockets TA85-1-16-004 and TA85-2-16-002, said "It is National's duty to minimize the cost of gas to its customers." It goes without comment that it is also then certainly MDU's duty to minimize the cost of gas to its customers as well. Yet, on the contrary, MDU has done everything possible to maintain the well-being of its associate pipeline company, WBIP, at the cost of its customers, the ratepayers of Montana.

I therefore recommend denying- the application for a rate increase as sought by MDU in this docket, imputing a supply cost of $2.00 per MCF (TR 148/149) and establishing MDU's basic price at $3.90 rather than the present $4.65.

If the Commission declines to refuse the grant of the increase requested by MDU in this docket, I then propose that this material and information be used to initiate an investigatory docket of gas purchase practices of Montana Dakota Utilities.

Tom Monahan
Commissioner